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Subject: Design document D005a Blow Down 3
Attachments: D005a Issue.pdf

Goedemorgen 5.1.2e

We hebben al de nodige documenten over en weer gestuurd inkader van de derde blow down.
Ik geloof niet dat jij deze update van het designdocument al ontvangen hebt.
Bij deze dan.

Met vriendelijke groet, kind regards, bien à vous,

5.1.2e
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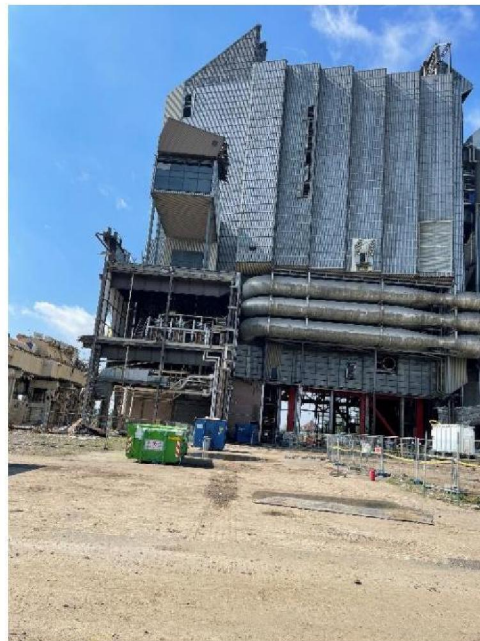
Design for Explosive Demolition

Site: Gelderland Central Power Station

Document No: C2002/MM/D005a

Title: Design for the Demolition of the Boiler House and
Turbine Pedestal using Controlled Explosives.

Date: 18th August 2022



Document authorisation:

Designer	5.1.2e B.Sc Eng (Hons), CEng, MStructE	5.1.2e Signature	18/08/22 Date
Checker	5.1.2e BEng CEng MIDE	5.1.2e Signature	18/08/22 Date

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1.0 CHANGE LOG

Rev	Date	By	Comment
-	05/08/2022	5.1.2e	Initial Issue
a	18/08/2022	5.1.2e	Calcs for steam pipe cuts added. Drawings updated.

2.0 OBJECTIVE / PURPOSE OF CALCULATIONS

- 2.1 The purpose of the following calculations is to determine stability of the Boiler House Support Structures (incorporating DA/Bunker Bay) and Turbine Pedestal following the proposed alterations to facilitate their demolition with the aid of Controlled Explosives.

3.0 EXECUTIVE SUMMARY

- 3.1 The calculations confirm that the proposed alterations to the Boiler House Support Structures (incorporating DA/Bunker Bay) and Turbine Pedestal do not adversely affect its stability and the attendant design drawings must be used to prepare the structure for demolition.

4.0 BASE DATA USED

1. 1-2606-00-017: Bovenaanzicht Konstruktie Op Niveru +27.700 en +28.600.
2. 1-2606-00-12-018: Bovenaanzicht Kostruktie Op Niveru +42.400 en +48.200.
3. 248982: Blad 1 van 20: Opstelling Ketel in Aanzicht +65.200.
4. 248983: Fundatie Tekening Ketelhuis.
5. 249018 BI 1 (2 bladen): Opstelling Ketelstatief.
6. 249018 BI 1 (2 bladen): Opstelling Ketelstatief.
7. H 381880 BI 1: Ontgasser Ø4500 (Degazeur).
8. Site measurements.

5.0 DESIGN CODES / STANDARDS USED

1. NEN3851: 1973 – Technical Principles for the Design and Calculation of Building Structures. TGB 1972 – STEEL.
2. CP 110: 1972 Code of practice for the structural use of concrete.
3. BS6399 – 2: Wind Loading on Buildings.

6.0 REFERENCES

1. Steelwork Design Guide to BS5950. Volume 4 - Essential Data for Designers.

7.0 ASSUMPTION LOG

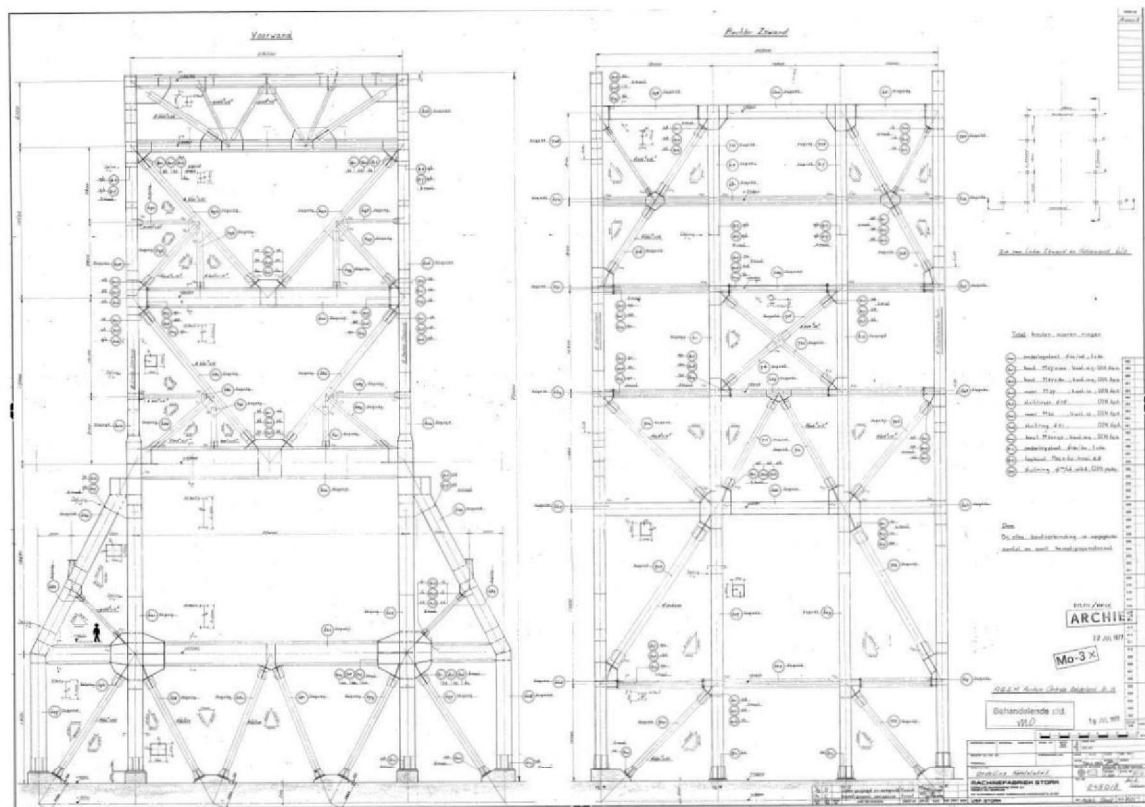
ASSUMPTION LOG			
Ref	Date	By	Assumption
A1	05/07/22	5.1.2e	The steel grade is mild steel.
A2	05/07/22		The concrete density = 24kN/m ³ .
A3	05/07/22		The concrete strength is 25N/mm ² .

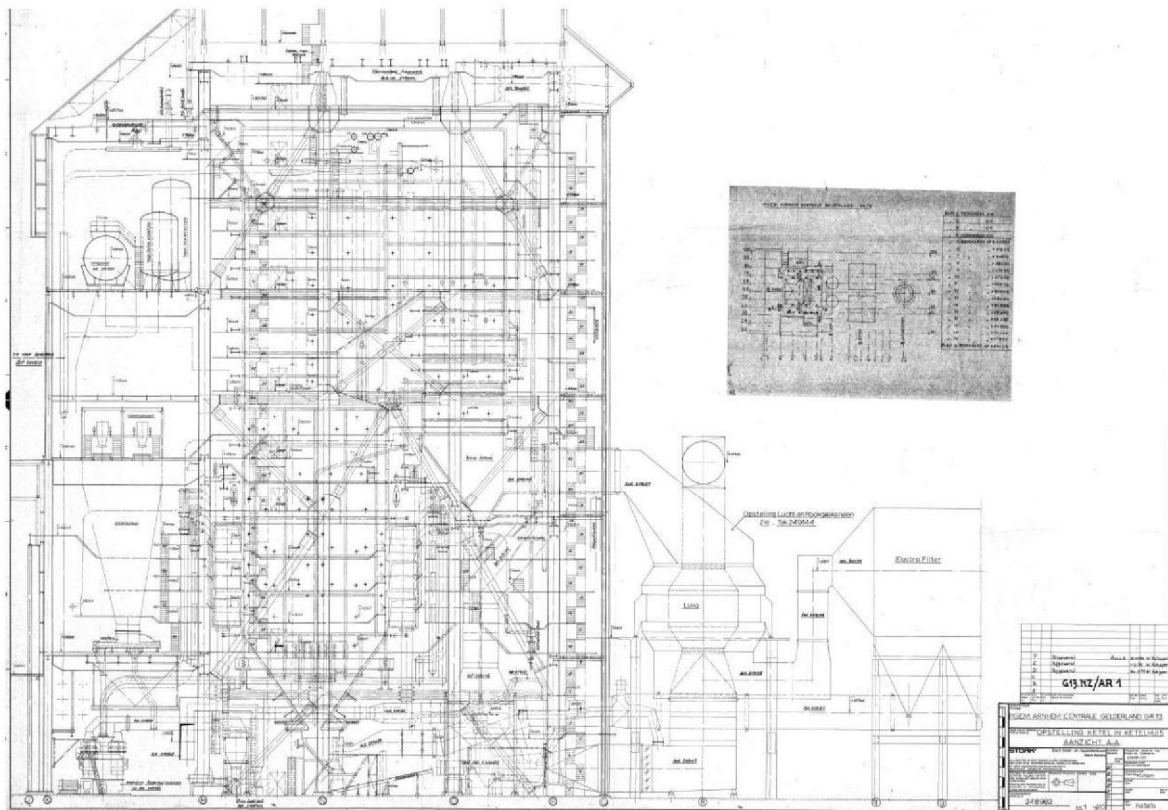
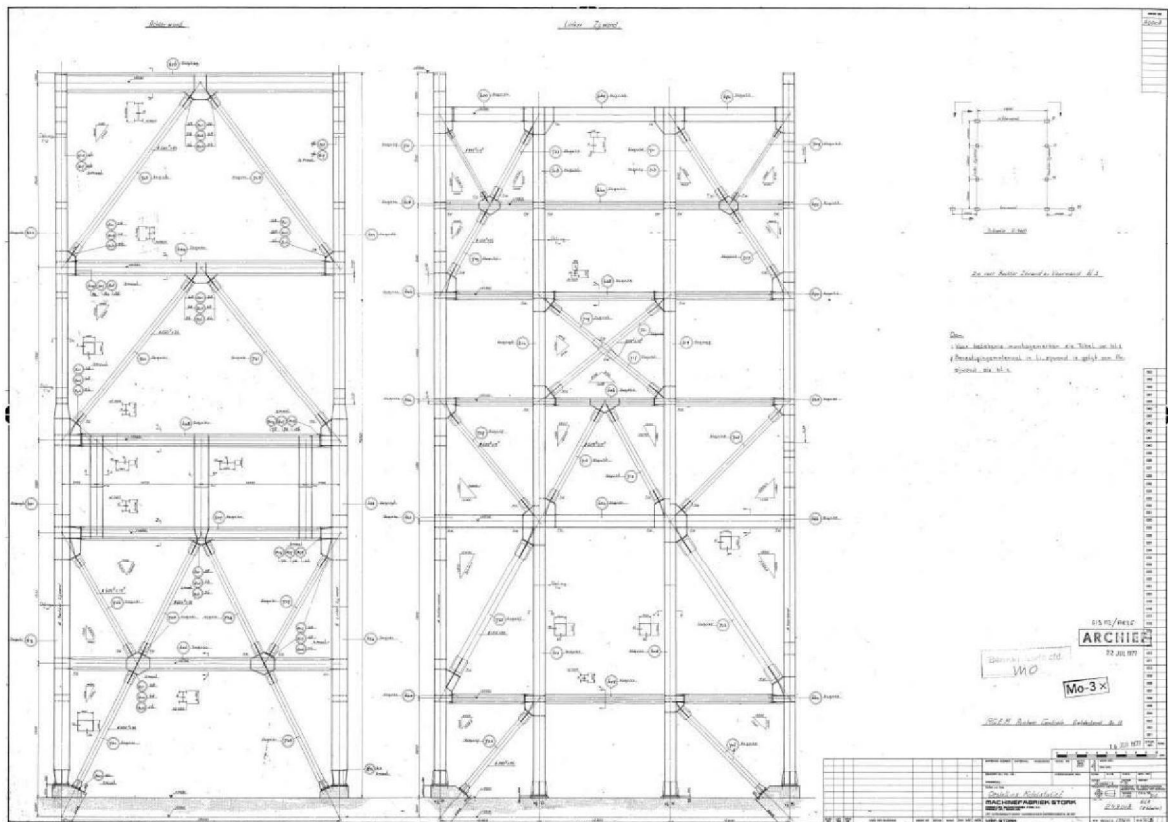
8.0 DESIGN INFORMATION

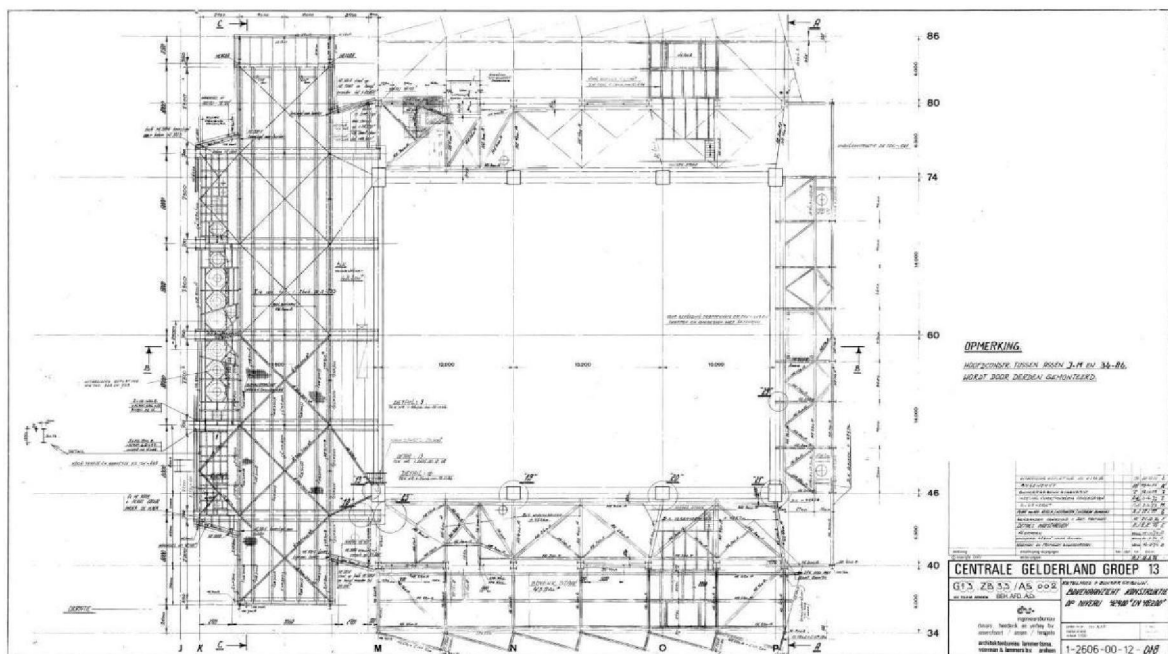
Building Age	The Power Station was completed in 1982. 682MW.
General Loading Conditions	
	Services – 5.1.2e
	Wind loading conditions – basic wind speed 24.5m/s.
Material data	
Static coefficient of friction	5.1.2e

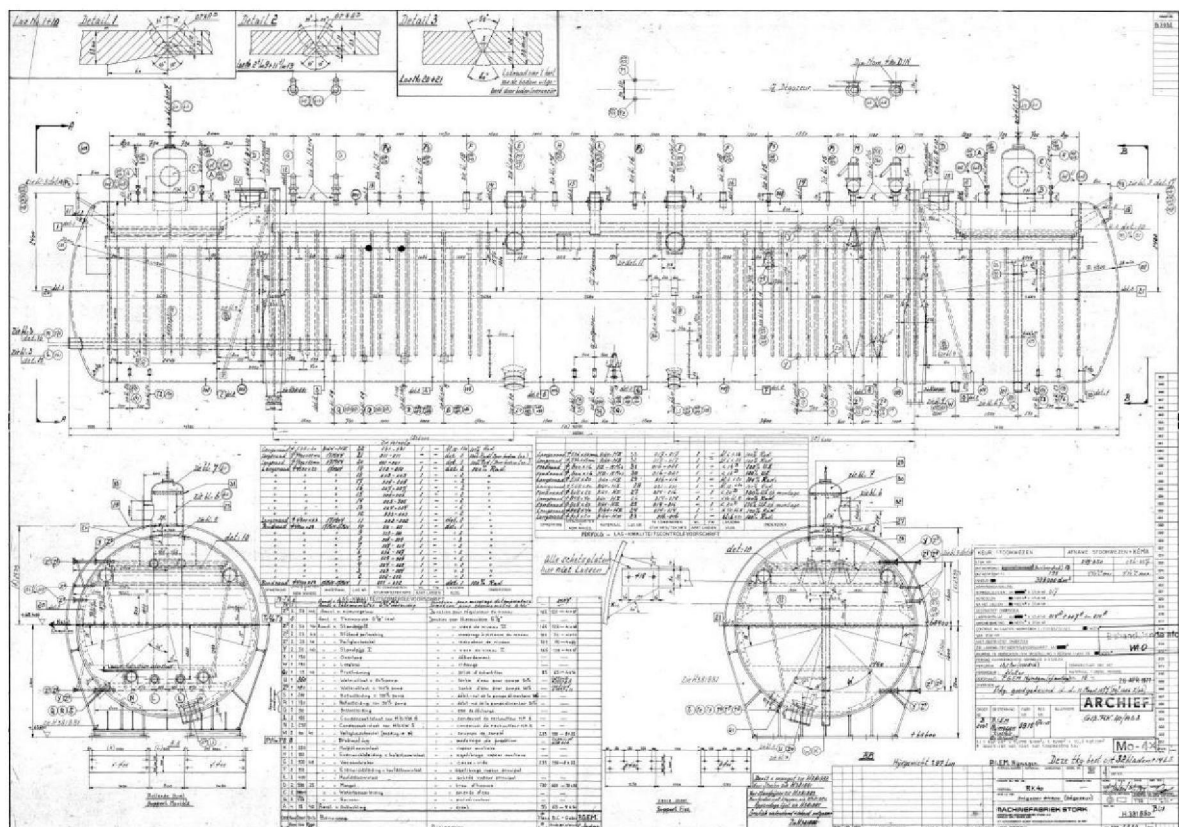
9.0 CONDITION

- 9.1 The Boiler House Support Structures (incorporating DA/Bunker Bay) and Turbine Pedestal .
- 9.1.1 B&M have satisfied themselves of the condition of the Boiler House Support Structures (incorporating DA/Bunker Bay) and Turbine Pedestal under consideration and the assessment is going to be undertaken on the basis that the respective reinforced concrete and structural steelwork members have suffered any deterioration.
- 9.1.2 A visual assessment of the structures was conducted on 24-25/05/2022.

[illegible]







11.0 DESIGN PHILOSOPHY

11.1 Demolition phasing.

The structural steelwork supporting the Denox, DA/Bunker Bay, the Boiler House and the reinforced concrete structure supporting the Turbine Block will be blown down simultaneously in one event. The calculations for the Denox are covered under D004, which was submitted to the Client earlier.

11.2 Demolition Strategy.

The structures will be prepared as shown on the drawings. There will be a separation line between the DA/Bunker Bay and the Boiler House as they will drop in different directions. All cladding up to the underside of the Operating Floor will be removed in advance as part of the enabling works.

11.3 Structural Checks.

The global stability and stresses of the respective structures will be checked in their respective pre-weakened states.

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	Part of Structure: Boiler House and Turbine Pedestal support structures			Sheet No./rev.:	
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22	
Ref.	Calculations				Output

12.0 CALCULATIONS

BS6399:2	WIND LOAD ASSESSMENT.	
Figure 6	V_b basic wind speed = 24.5m/s.	
2.2.2.2	S_a , altitude factor = $1 + 0.001\Delta s$ $\Delta s = 14\text{m}$ (ground level). Therefore, $S_a = 1 + 0.001 \times 14 = 1.014$	
2.2.2.3	S_d , the directional factor = 1.0 (the max value and therefore conservative). S_s , seasonal factor = 1.0 (the max value and therefore conservative).	
2.2.2.4	S_p , probability factor = $\sqrt{(5-\ln(-\ln(1-Q)))/(5-\ln(-\ln(0.98)))}$.	
2.2.2.5	S_p for permanent structures = 1.0 and caters for a 1:50 (i.e. 0.02 annual design risk) wind event. V_s , the site wind speed = $V_b \times S_a \times S_d \times S_s \times S_p$.	
2.2.2.1	$V_s = 24.5 \times 1.014 \times 1.0 \times 1.0 \times 1.0 = 24.84\text{m/s}$.	
Table 4	S_b , the terrain and building factor (effective height $H_e = 81\text{m}$ and closest distance to sea upwind = 106km) = $1.95 + (2.07 - 1.95) \times 31/50 = 2.0244$	
2.1.2	V_e , effective wind speed = $V_s \times S_b = 24.84 \times 2.0244 = 50.286\text{m/s}$. q_s , dynamic pressure = $0.613 V_e^2 = 0.613 \times 50.286^2 = 1.55 \text{ kN/m}^2$	
2.1.3.3 (b)	The net surface pressure, $p = q_s C_p C_a$	
Table 5a	$B/D = 40/56 = 0.714$; $D/H = 40/81 = 0.494$ $C_{pe} = 1.2$	
Figure 4	c_a , size effect factor, ($H_e=81$, distance to sea= 106km, $a = 90\text{m}$) = 0.82	
2.1.3.3	Therefore, $p = 1.55 \times 1.2 \times 0.82 = 1.5252\text{m}^2$. Factored wind force = $1.5 \times 1.5252 = 2.2878$, say 2.3kN/m² . SELF-WEIGHT ASSESSMENTS.	

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Ref.	Calculations					Output

DA/Bunker Dead Load.

Roof



Roof	kN/m2
1.2mm Steel roof sheeting	= 0.12
Secondary steelwork	= 0.15
Services	= 0.005
UDL	= 0.275 , say 0.3kN/m2, excluding
main beams.	

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Level 85 Platform



Platform	kN/m ²
Secondary steelwork	= 0.30
Services	= 0.05
UDL	= 0.35 , say 0.4kN/m ² , excluding
main beams.	

Dust Suppression Tonne Bags x 4no.
 Weight = 11kN

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DA Floor



8"RC + 2" Grano Floor – $0.254 \times 24 = 6.096$

Metal Decking = 0.136

Secondary steelwork = 0.05

Services = 0.1

Total = 6.382, say 6.5kN/m²

DA Tank (Opstelling Ontgasser)

DA Tank weight = 970kN

Accessories = 50

Total = 1020kN

Weight per saddle = 510kN

Lager Koel water Tank

Weight = 250kN

Demic Water Tank

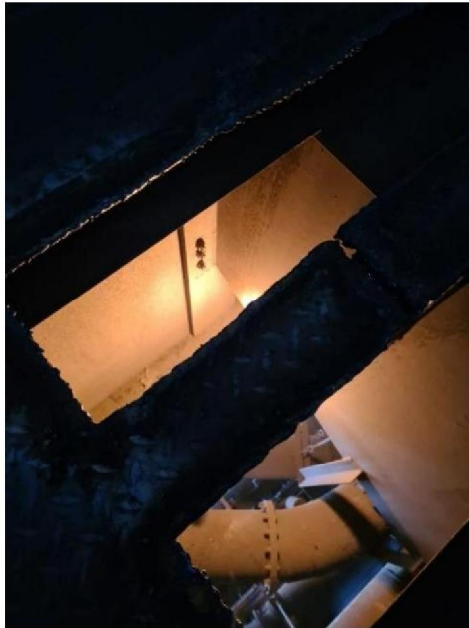
Weight = 250kN

Dust Suppression Swimming Pool

Weight = 31kN

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				Date: 18/08/22		
Ref.	Calculations					Output

Top of Bunkers Floor



Floor	kN/m ²
10mm Chequer plate	= 0.80
Secondary steelwork	= 0.50
Coal distribution system	= 2.00
Services	= 0.05
UDL	= 3.35, say 3.5 kN/m ² , excluding main beams.

Bunker

Note: There is insufficient record information available to calculate/obtain the bunker weight.

At Tilbury Power Station Bunker weight (357MW/boiler) = 1405kN

Gelderland (632MW) prorated Bunker weight = $1405 \times 632/357 = 2487.283$

Add remnant coal, say 100kN

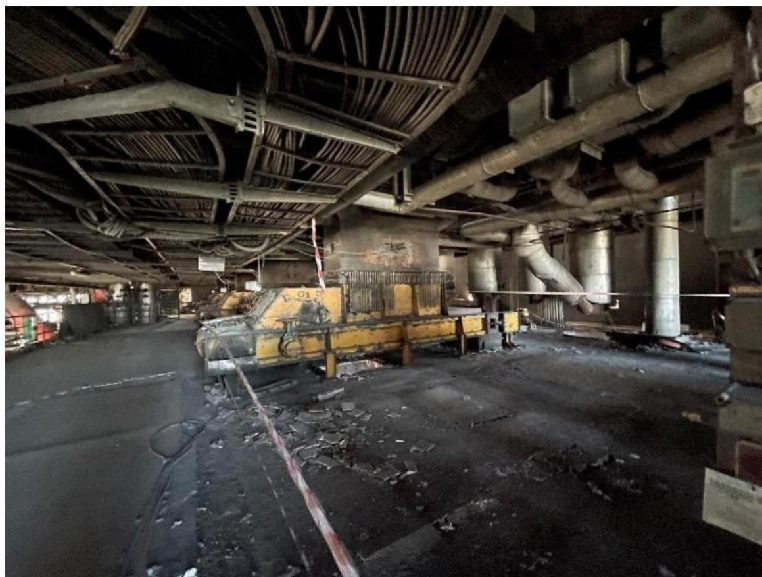
Total = 2587.283, **say 2600kN.**

Dust Suppression Swimming Pool

Weight = 31kN

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Ref.	Calculations				Output

Firing Floor



8"RC + 2" Grano Floor – $0.254 \times 24 = 6.096$

Secondary steelwork = 1.000

Services = 0.1

Total = 7.196, say **7.5kN/m²**

Coal Feeders (each)

Weight = 150kN

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Ref.	Calculations					Output	

	Boiler House Dust Suppression Tonne Bags x 4no. Weight = 11kN Economiser From drg. No. 249056 = 32000kN Boiler Boiler remnant weight = 6000kN	
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	Calc. by: 5.1.2e		Date: 18/08/22		App'd by: 5.1.2e	
				Date: 18/08/22		
Ref.	Calculations					Output

LOADING INPUT

Horizontal Forces: East to West.

Floor	Level (m)	Height , m	Wind Load, kN	Notional Horizontal Load, kN	Hor Load kN
Gnd	14.00	0.00	-	-	-
1st	28.00	14.0	$2.3(14/81) \times 10 = 31.8$	$0.01(150 + 7.5 \times 8 \times 16) = 11.1$	35
2nd	48.00	34.0	$2.3(34/81) \times 13 = 100.4$	$0.01(2600 + 3.5 \times 8 \times 16) = 30.48$	105
3rd	54.00	40.0	$2.3(40/81) \times 8 = 72.7$	negligible	75
4th	64.00	50.0	$2.3(50/81) \times 17 = 193.1$	$0.01(850 + 6.5 \times 8 \times 16) = 16.82$	200
5th	88.00	74.0	$2.3(74/81) \times 15.5 = 260.6$	$0.01 \times 19000 = 190$	260
6th	95.00	81.0	$2.3 \times 8 \times 3.5 = 64.4$	negligible	65

Beam Loads.

Level	Longitudinal Beams		Nodal Load			
	UDL (kN/m)	PL (kN)	PL (kN)			
Gnd						
1st	72	150 @ 0.5L	35			
2nd	234	31 @ 0.3L	105			
3rd	1	-	75			
4th	63	510 @ 0.4L 250 @ 0.2L 31 @ 0.3	200			
5th	4 Boiler 85 GL M 170 GL N 860 GL O 515 GL P	11 @ quarter points for bms to cols	260			
6th	3		65			

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Ref.	Calculations					Output	

Horizontal Forces: North to South Grid Line K

Floor	Level (m)	Height , m	Wind Load, kN	Notional Horizontal Load, kN	Hor Load kN
Gnd	14.00	0.00	-	-	-
1st	28.00	14.0	2.3(14/81) 7.9 x 10 = 31.4	negligibe	35
2nd	48.00	34.0	2.3(34/81) 7.9 x 13 = 99.2	negligibe	100
3rd	54.00	40.0	2.3(40/81) 7.9 x 8 = 71.8	negligibe	75
4th	64.00	50.0	2.3(50/81) 7.9 x 17 = 190.1	negligibe	195
5th	88.00	74.0	2.3(74/81) 7.9 x 13.75 = 228.2	negligibe	230
6th	95.00	81.0	-		-

Horizontal Forces: North to South Grid Line M

Floor	Level (m)	Height , m	Wind Load, kN	Notional Horizontal Load, kN	Hor Load kN
Gnd	14.00	0.00	-	-	-
1st	24.00	10.0	2.3(10/81) 13.9 x 7 = 27.6	negligible	30
2nd	42.00	28.0	2.3(28/81) 13.9 x 15 = 165.8	negligible	170
3rd	54.00	40.0	2.3(40/81) 13.9 x 11.5 = 181.6	negligible	185
4th	65.00	51.0	2.3(51/81) 13.9 x 10 = 201.3	negligible	205
5th	74.00	60.0	2.3(60/81) 13.9 x 9 = 213.1	negligible	215
6th	83.00	69.0	2.3(69/81) 13.9 x 16.5 = 449.4	0.01 X 1.2 X 2000 = 24	450

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Ref.	Calculations					Output	

Horizontal Forces: North to South Grid Line N

Floor	Level (m)	Height , m	Wind Load, kN	Notional Horizontal Load, kN	Hor Load kN
Gnd	14.00	0.00	-	-	-
1st	24.00	10.0	2.3(10/81) 12.6 x 7 = 25	negligible	25
2nd	42.00	28.0	2.3(28/81) 12.6 x 15 = 150.3	negligible	155
3rd	54.00	40.0	2.3(40/81) 12.6 x 11.5 = 164.6	negligible	165
4th	65.00	51.0	2.3(51/81) 12.6 x 10 = 182.5	negligible	185
5th	74.00	60.0	2.3(60/81) 12.6 x 9 = 193.2	negligible	195
6th	83.00	69.0	2.3(69/81) 12.6 x 16.5 = 407.4	0.01 X 1.2 X 4000 = 48	410

Horizontal Forces: North to South Grid Line O

Floor	Level (m)	Height , m	Wind Load, kN	Notional Horizontal Load, kN	Hor Load kN
Gnd	14.00	0.00	-	-	-
1st	24.00	10.0	2.3(10/81) 11.6 x 7 = 23.06	negligible	25
2nd	42.00	28.0	2.3(28/81) 11.6 x 15 = 138.4	negligible	140
3rd	54.00	40.0	2.3(40/81) 11.6 x 11.5 = 151.5	negligible	155
4th	65.00	51.0	2.3(51/81) 11.6 x 10 = 201.3	negligible	200
5th	74.00	60.0	2.3(60/81) 11.6 x 9 = 167.98	negligible	170
6th	83.00	69.0	2.3(69/81) 11.6 x 16.5 = 375.0	0.01 X 1.2 X 20000 = 240	375

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				Date: 18/08/22		
Ref.	Calculations					Output

Horizontal Forces: North to South Grid Line P

Floor	Level (m)	Height , m	Wind Load, kN	Notional Horizontal Load, kN	Hor Load kN
Gnd	14.00	0.00	-	-	-
1st	24.00	10.0	2.3(10/81) 10 x 7 = 19.9	negligible	20
2nd	42.00	28.0	2.3(28/81) 10 x 15 = 119.3	negligible	120
3rd	54.00	40.0	2.3(40/81) 10 x 11.5 = 130.6	negligible	135
4th	65.00	51.0	2.3(51/81) 10 x 10 = 144.8	negligible	145
5th	74.00	60.0	2.3(60/81) 10 x 9 = 153.3	negligible	155
6th	83.00	69.0	2.3(69/81) 10 x 16.5 = 323.3	0.01 X 1.2 X 12000 = 144	325

Beam Loads.

Level	Longitudinal Beams		Nodal Load			
	UDL (kN/m)	PL (kN)	PL (kN)			
Gnd						
1st			2392	3611	3611	2392
			3417	5158	5158	3417
			1025	1547	1547	1025

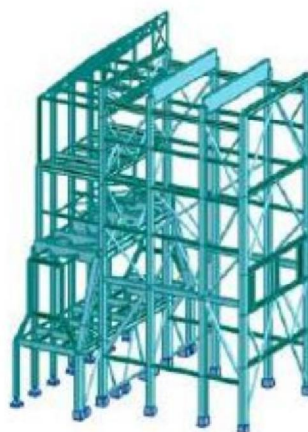
SECTION PROPERTIES' CALCULATIONS.

Note: Standard sections will be calculated automatically by the analysis software.

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	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
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THE BOILER SUPPORTING STRUCTURE.

Structure view





BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

App'd by:
5.1.2e

Date:
18/08/22

Ref.

Calculations

Output

Nodes

Node	X (m)	Y (m)	Z (m)	Support code	Support
1	0.0	0.0	0.0	xxxxff	Pinned
2	0.0	8.00	0.0	xxxxff	Pinned
3	0.0	16.00	0.0	xxxxff	Pinned
4	0.0	24.00	0.0	xxxxff	Pinned
5	0.0	32.00	0.0	xxxxff	Pinned
6	0.0	40.00	0.0	xxxxff	Pinned
7	0.0	48.00	0.0	xxxxff	Pinned
8	15.70	48.00	0.0	xxxxxx	Fixed
9	15.70	45.70	0.0	xxxxxx	Fixed
10	15.70	38.00	0.0	xxxxxx	Fixed
11	15.70	31.80	0.0	xxxxxx	Fixed
12	15.70	28.60	0.0	xxxxxx	Fixed
13	15.70	19.40	0.0	xxxxxx	Fixed
14	15.70	16.20	0.0	xxxxxx	Fixed
15	15.70	10.00	0.0	xxxxxx	Fixed
16	15.70	2.30	0.0	xxxxxx	Fixed
17	15.70	0.0	0.0	xxxxxx	Fixed
18	27.70	10.00	0.0	xxxxxx	Fixed
19	27.70	38.00	0.0	xxxxxx	Fixed
20	40.90	38.00	0.0	xxxxxx	Fixed
21	40.90	10.00	0.0	xxxxxx	Fixed
22	50.90	10.00	0.0	xxxxxx	Fixed
23	50.90	38.00	0.0	xxxxxx	Fixed
24	15.70	10.00	9.40		
25	15.70	38.00	9.40		
26	27.70	38.00	9.40		
27	27.70	10.00	9.40		
28	40.90	10.00	9.40		
29	40.90	38.00	9.40		
30	50.90	38.00	9.40		
31	50.90	10.00	9.40		
32	15.70	0.0	13.00		
33	15.70	10.00	13.00		
34	15.70	24.00	13.00		
35	15.70	38.00	13.00		
36	15.70	48.00	13.00		
38	50.90	30.40	13.00		
39	50.90	17.60	13.00		
40	50.90	10.00	13.00		
41	0.0	0.0	13.00		
42	0.0	8.00	13.00		
43	0.0	16.00	13.00		
44	0.0	24.00	13.00		
45	0.0	32.00	13.00		
46	0.0	40.00	13.00		
47	0.0	48.00	13.00		
49	15.70	40.00	13.00		
51	15.70	32.00	13.00		
53	15.70	16.00	13.00		



BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

App'd by:
5.1.2e

Date:
18/08/22

Ref.

Calculations

Output

Node	X (m)	Y (m)	Z (m)	Support code	Support
55	15.70	8.00	13.00		
57	15.70	2.30	18.60		
58	15.70	45.70	18.60		
59	3.40	0.0	20.00		
60	3.40	48.00	20.00		
61	11.40	48.00	20.00		
62	11.40	0.0	20.00		
63	50.90	10.00	25.20		
64	50.90	13.50	25.20		
65	50.90	24.00	25.20		
66	50.90	34.50	25.20		
67	50.90	38.00	25.20		
68	15.70	10.00	27.30		
69	15.70	38.00	27.30		
70	27.70	38.00	27.30		
71	27.70	10.00	27.30		
72	40.90	10.00	27.30		
73	40.90	38.00	27.30		
74	50.90	38.00	27.30		
75	50.90	10.00	27.30		
76	0.0	8.00	32.50		
77	0.0	12.00	32.50		
78	0.0	16.00	32.50		
79	0.0	24.00	32.50		
80	0.0	32.00	32.50		
81	0.0	36.00	32.50		
82	0.0	40.00	32.50		
83	3.40	48.00	32.50		
84	3.40	40.00	32.50		
85	3.40	32.00	32.50		
86	3.40	24.00	32.50		
87	3.40	16.00	32.50		
88	3.40	8.00	32.50		
89	3.40	0.0	32.50		
90	11.40	0.0	32.50		
91	11.40	8.00	32.50		
92	11.40	16.00	32.50		
93	11.40	24.00	32.50		
94	11.40	32.00	32.50		
95	11.40	40.00	32.50		
96	11.40	48.00	32.50		
97	15.70	40.00	32.50		
98	15.70	38.00	32.50		
99	15.70	32.00	32.50		
100	15.70	29.80	32.50		
101	15.70	24.00	32.50		
102	15.70	18.20	32.50		
103	15.70	16.00	32.50		
104	15.70	10.00	32.50		
105	15.70	8.00	32.50		
106	50.90	10.00	34.60		
107	50.90	13.50	34.60		



BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

App'd by:
5.1.2e

Date:
18/08/22

Ref.

Calculations

Output

Node	X (m)	Y (m)	Z (m)	Support code	Support
108	50.90	24.00	34.60		
109	50.90	34.50	34.60		
110	50.90	38.00	34.60		
111	15.70	10.00	38.50		
112	15.70	18.20	38.50		
113	15.70	29.80	38.50		
114	15.70	38.00	38.50		
115	0.0	10.00	39.50		
116	0.0	24.00	39.50		
117	0.0	38.00	39.50		
118	3.40	38.00	39.50		
119	3.40	31.00	39.50		
120	3.40	24.00	39.50		
121	3.40	17.00	39.50		
122	3.40	10.00	39.50		
123	7.40	13.50	39.50		
124	7.40	20.50	39.50		
125	7.40	27.50	39.50		
126	7.40	34.50	39.50		
127	11.40	38.00	39.50		
128	11.40	31.00	39.50		
129	11.40	24.00	39.50		
130	11.40	17.00	39.50		
131	11.40	10.00	39.50		
132	15.70	10.00	39.50		
133	15.70	24.00	39.50		
134	15.70	38.00	39.50		
135	27.70	38.00	39.50		
136	27.70	10.00	39.50		
137	34.30	10.00	39.50		
138	34.30	38.00	39.50		
139	40.90	38.00	39.50		
140	40.90	10.00	39.50		
141	50.90	10.00	39.50		
142	50.90	38.00	39.50		
143	15.70	10.00	48.60		
145	15.70	24.00	48.60		
147	15.70	38.00	48.60		
148	0.0	10.00	50.00		
149	0.0	16.00	50.00		
150	0.0	24.00	50.00		
151	0.0	32.00	50.00		
152	0.0	38.00	50.00		
153	4.00	24.00	50.00		
154	8.00	16.00	50.00		
155	8.00	20.00	50.00		
156	8.00	28.00	50.00		
157	8.00	32.00	50.00		
158	15.70	38.00	50.00		
159	15.70	31.00	50.00		
160	15.70	24.00	50.00		
161	15.70	17.00	50.00		

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures				Sheet No./rev.:	
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Node	X (m)	Y (m)	Z (m)	Support code	Support
162	15.70	10.00	50.00		
163	27.70	10.00	50.00		
164	27.70	38.00	50.00		
165	40.90	38.00	50.00		
166	40.90	10.00	50.00		
167	50.90	10.00	50.00		
168	50.90	38.00	50.00		
169	50.90	10.00	52.00		
170	50.90	24.00	52.00		
171	50.90	38.00	52.00		
172	15.70	10.00	56.40		
173	15.70	17.00	56.40		
175	15.70	31.00	56.40		
176	15.70	38.00	56.40		
177	15.70	10.00	59.00		
178	15.70	38.00	59.00		
179	21.70	38.00	59.00		
180	21.70	10.00	59.00		
181	27.70	10.00	59.00		
182	27.70	38.00	59.00		
183	40.90	38.00	59.00		
184	40.90	10.00	59.00		
185	45.90	10.00	59.00		
186	45.90	38.00	59.00		
187	50.90	38.00	59.00		
188	50.90	10.00	59.00		
189	15.70	10.00	64.20		
190	15.70	20.00	64.20		
191	15.70	28.00	64.20		
192	15.70	38.00	64.20		
193	0.0	10.00	65.80		
194	0.0	16.00	65.80		
195	0.0	24.00	65.80		
196	0.0	32.00	65.80		
197	0.0	38.00	65.80		
198	8.00	32.00	65.80		
199	8.00	28.00	65.80		
200	8.00	20.00	65.80		
201	8.00	16.00	65.80		
202	15.70	10.00	65.80		
203	15.70	16.00	65.80		
204	15.70	24.00	65.80		
205	15.70	32.00	65.80		
206	15.70	38.00	65.80		
207	15.70	10.00	67.50		
208	15.70	38.00	67.50		
209	27.70	38.00	67.50		
210	27.70	10.00	67.50		
211	40.90	10.00	67.50		
212	40.90	38.00	67.50		
213	50.90	38.00	67.50		
214	50.90	10.00	67.50		

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
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	Calc. by: 5.1.2e		Date: 18/08/22		App'd by: 5.1.2e	
		Date: 18/08/22				
Ref.	Calculations					Output

Node	X (m)	Y (m)	Z (m)	Support code	Support
215	15.70	10.00	71.00		
216	15.70	16.00	71.00		
217	15.70	24.00	71.00		
218	15.70	32.00	71.00		
219	15.70	38.00	71.00		
220	27.70	38.00	71.00		
221	27.70	10.00	71.00		
222	40.90	10.00	71.00		
223	40.90	38.00	71.00		
224	50.90	38.00	71.00		
225	50.90	24.00	71.00		
226	50.90	10.00	71.00		
227	2.60	10.00	65.80		
228	2.60	10.00	68.10		
229	5.20	10.00	68.10		
230	5.20	10.00	70.40		
5.1.2e					
232	7.80	10.00	72.70		
233	10.40	10.00	72.70		
234	10.40	10.00	75.00		
235	13.00	10.00	75.00		
236	13.00	10.00	77.30		
237	15.70	10.00	77.30		
238	15.70	10.00	79.30		
239	2.60	16.00	65.80		
240	2.60	16.00	68.10		
241	5.20	16.00	68.10		
242	5.20	16.00	70.40		
243	7.80	16.00	70.40		
244	7.80	16.00	72.70		
245	10.40	16.00	72.70		
246	10.40	16.00	75.00		
247	13.00	16.00	75.00		
248	13.00	16.00	77.30		
249	15.70	16.00	77.30		
250	15.70	16.00	79.30		
251	2.60	24.00	65.80		
252	2.60	24.00	68.10		
253	5.20	24.00	68.10		
254	5.20	24.00	70.40		
255	7.80	24.00	70.40		
256	7.80	24.00	72.70		
257	10.40	24.00	72.70		
258	10.40	24.00	75.00		
259	13.00	24.00	75.00		
260	13.00	24.00	77.30		
261	15.70	24.00	77.30		
262	15.70	24.00	79.30		
263	2.60	32.00	65.80		
264	2.60	32.00	68.10		
265	5.20	32.00	68.10		
266	5.20	32.00	70.40		



BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
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Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

App'd by:
5.1.2e

Date:
18/08/22

Ref.

Calculations

Output

Node	X (m)	Y (m)	Z (m)	Support code	Support
267	7.80	32.00	70.40		
268	7.80	32.00	72.70		
269	10.40	32.00	72.70		
270	10.40	32.00	75.00		
271	13.00	32.00	75.00		
272	13.00	32.00	77.30		
273	15.70	32.00	77.30		
274	15.70	31.00	79.30		
275	2.60	38.00	65.80		
276	2.60	38.00	68.10		
277	5.20	38.00	68.10		
278	5.20	38.00	70.40		
279	7.80	38.00	70.40		
280	7.80	38.00	72.70		
281	10.40	38.00	72.70		
282	10.40	38.00	75.00		
283	13.00	38.00	75.00		
284	13.00	38.00	77.30		
285	15.70	38.00	77.30		
286	15.70	38.00	79.30		
290	0.0	10.00	32.50		
291	0.0	16.00	39.50		
293	0.0	32.00	39.50		
295	0.0	38.00	32.50		
296	27.70	10.00	27.33		
301	50.90	38.00	13.00		
311	7.80	10.00	72.40		
312	10.40	10.00	72.40		
314	15.70	32.00	79.30		
316	10.00	0.0	13.00		
317	4.00	8.00	13.00		
318	10.00	16.00	13.00		
319	4.00	24.00	13.00		
320	10.00	32.00	13.00		
321	4.00	40.00	13.00		
322	10.00	48.00	13.00		
323	4.00	0.0	13.00		
324	4.00	16.00	13.00		
325	4.00	32.00	13.00		
326	4.00	48.00	13.00		
327	10.00	8.00	13.00		
328	10.00	24.00	13.00		
329	10.00	40.00	13.00		

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
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	Calc. by: 5.1.2e		Date: 18/08/22		App'd by: 5.1.2e	
		Date: 18/08/22				
Ref.	Calculations					Output

ANALYSIS OF STRUCTURE – HORIZONTAL LOAD IN E to W DIRECTION.

Loads

	Case	Load type	List
	1	self-weight	1 6 7 9to37 4
	1	uniform load	167 168
	1	uniform load	169 170
	1	uniform load	226
	1	uniform load	227
	1	uniform load	224 225
	1	uniform load	309to314 334
	1	uniform load	
	1	member force	
	1	member force	
	1	member force	
	1	uniform load	142to146
	1	member force	144 145
	1	member force	142 143
	1	member force	146
	1	member force	146
	1	uniform load	482to484
	1	uniform load	122to126
	1	uniform load	121 127
	1	member force	124
	1	uniform load	98to104
	1	member force	98to100 102
	1	member force	101 103 104
	1	uniform load	530to534
	1	member force	530 534
	1	member force	530 534
	1	member force	530 534
	1	nodal force	238to286By1
	1	nodal force	193 197
	1	nodal force	194to196
	1	nodal force	148to152
	1	nodal force	115to117
	1	nodal force	76 78to80 82
	1	nodal force	83 89
	1	nodal force	41to47

	Load values
	PZ Negative Factor=1.00
	PZ=-85.00(kN/m)
	PZ=-85.00(kN/m)
	PZ=-170.00(kN/m)
	PZ=-860.00(kN/m)
	PZ=-515.00(kN/m)
	PZ=-3.00(kN/m)
	PZ=-4.00(kN/m)
	FZ=-11.00(kN) X=0.25 relative
	FZ=-11.00(kN) X=0.25 relative
	FZ=-11.00(kN) X=0.75 relative

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
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Ref.	Calculations				Output	

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 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152		Project: Gelderland Central Power Station			Job Ref.: C2002	
		Part of Structure: Boiler House and Turbine Pedestal support structures			Sheet No./rev.:	
		Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22	
Ref.	Calculations					Output

reactions: values

in the coordinate system: global - Case: 1 (1.2 X Dead Load + 1.5 x Horizontal Load)

Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
1/ 1	31.13	2.27	1398.17	0.00	0.0	0.0
2/ 1	26.65	-8.77	3676.27	0.0	0.0	0.0
3/ 1	26.20	2.23	4212.13	0.0	0.0	0.0
4/ 1	26.14	-0.01	3983.11	0.0	0.0	0.0
5/ 1	26.22	-2.25	4203.49	0.0	0.0	0.0
6/ 1	26.66	8.80	3678.11	0.0	0.0	0.0
7/ 1	31.17	-2.26	1398.65	0.00	0.0	0.0
8/ 1	-101.97	-98.35	4486.85	643.92	-1097.93	18.17
9/ 1	-3.63	-638.78	1108.54	-41.66	-39.64	-15.08
10/ 1	-994.44	-60.84	5099.04	381.99	-1207.37	12.34
11/ 1	-3.87	409.11	892.27	49.23	-42.45	14.26
12/ 1	-3.09	-254.14	747.32	-26.28	-40.13	-8.61
13/ 1	-3.09	254.20	747.48	26.25	-40.16	8.59
14/ 1	-3.87	-408.20	890.36	-49.21	-42.50	-14.29
15/ 1	-997.34	60.88	5085.35	-382.30	-1209.56	-12.75
16/ 1	-3.64	638.03	1107.27	41.64	-39.73	15.10
17/ 1	-102.28	98.25	4486.83	-643.61	-1101.28	-18.37
18/ 1	-148.90	2.46	5187.55	-45.13	-967.76	-7.13
19/ 1	-149.82	-2.61	5182.40	47.13	-969.52	7.38
20/ 1	-222.11	1.20	8175.87	5.84	-1352.86	11.38
21/ 1	-223.19	-1.22	8172.14	-5.66	-1357.68	-11.22
22/ 1	-374.30	844.40	15338.22	437.74	-2372.83	-7.32
23/ 1	-373.62	-844.43	15326.97	-436.05	-2367.87	7.11
Case 1	1.2 X Dead Load + 1.5 x Horizontal Load					
Sum of val.	-3515.00	-0.00	104584.40	3.82	-14249.29	-0.43
Sum of reac.	-3515.00	-0.00	104584.40	2510057.20	-2918013.98	84295.00
Sum of forc.	3515.00	-0.00	-104584.40	-2510057.20	2918013.98	-84295.00
Check val.	0.00	-0.00	0.00	0.00	0.00	-0.00
Precision	3.00044e-10	5.52025e-22				

View - Reaction forces(kN),Reaction moments(kN*m), Cases: 1 (1.2 X Dead Load + 1.5 x Horizontal Load)

RM kNm
RF kN

Cases: 1 (1.2 X Dead Load + 1.5 x Horizontal Load)



BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

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18/08/22

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5.1.2e

Date:
18/08/22

Ref.

Calculations

Output

displacements: values

- Case: 1 (1.2 X Dead Load + 1.5 x Horizontal Load)

Node/Case	UX (mm)	UY (mm)	UZ (mm)	RX (Rad)	RY (Rad)	RZ (Rad)
1/ 1	0.0	0.0	0.0	0.000	-0.000	0.000
2/ 1	0.0	0.0	0.0	-0.000	0.000	0.000
3/ 1	0.0	0.0	0.0	0.000	0.000	0.000
4/ 1	0.0	0.0	0.0	0.000	0.000	0.000
5/ 1	0.0	0.0	0.0	-0.000	0.000	-0.000
6/ 1	0.0	0.0	0.0	0.000	0.000	-0.000
7/ 1	0.0	0.0	0.0	-0.000	-0.000	-0.000
8/ 1	0.0	0.0	0.0	0.0	0.0	0.0
9/ 1	0.0	0.0	0.0	0.0	0.0	0.0
10/ 1	0.0	0.0	0.0	0.0	0.0	0.0
11/ 1	0.0	0.0	0.0	0.0	0.0	0.0
12/ 1	0.0	0.0	0.0	0.0	0.0	0.0
13/ 1	0.0	0.0	0.0	0.0	0.0	0.0
14/ 1	0.0	0.0	0.0	0.0	0.0	0.0
15/ 1	0.0	0.0	0.0	0.0	0.0	0.0
16/ 1	0.0	0.0	0.0	0.0	0.0	0.0
17/ 1	0.0	0.0	0.0	0.0	0.0	0.0
18/ 1	0.0	0.0	0.0	0.0	0.0	0.0
19/ 1	0.0	0.0	0.0	0.0	0.0	0.0
20/ 1	0.0	0.0	0.0	0.0	0.0	0.0
21/ 1	0.0	0.0	0.0	0.0	0.0	0.0
22/ 1	0.0	0.0	0.0	0.0	0.0	0.0
23/ 1	0.0	0.0	0.0	0.0	0.0	0.0
24/ 1	3	-1	-1	0.000	0.001	0.000
25/ 1	3	1	-1	-0.000	0.001	-0.000
26/ 1	3	0	-2	-0.000	0.000	-0.000
27/ 1	3	-0	-2	0.000	0.000	0.000
28/ 1	4	-0	-3	0.000	0.000	0.000
29/ 1	4	0	-3	-0.000	0.000	-0.000
30/ 1	5	-1	-3	0.000	0.001	-0.000
31/ 1	5	1	-3	-0.000	0.001	0.000
32/ 1	6	-1	-1	0.000	0.001	0.000
33/ 1	5	-1	-2	-0.000	0.001	0.000
34/ 1	5	-0	-1	-0.000	0.001	0.000
35/ 1	5	1	-2	0.000	0.001	-0.000
36/ 1	6	1	-1	-0.000	0.001	-0.000
38/ 1	7	-1	-3	-0.000	0.000	-0.000
39/ 1	7	1	-3	0.000	0.000	0.000
40/ 1	7	1	-4	0.000	0.000	0.000
41/ 1	6	-0	-1	-0.000	0.001	0.000
42/ 1	5	-0	-3	0.000	0.001	0.000
43/ 1	5	-0	-4	-0.000	0.001	0.000
44/ 1	5	-0	-3	0.000	0.001	0.000
45/ 1	5	0	-4	0.000	0.001	-0.000
46/ 1	5	0	-3	-0.000	0.001	-0.000
47/ 1	5	0	-1	0.000	0.001	-0.000
49/ 1	5	1	-2	0.000	0.001	-0.000
51/ 1	5	0	-2	-0.000	0.001	-0.000
53/ 1	5	-0	-2	0.000	0.001	0.000



Anson House, Schooner Court,
Crossways Business Park, Dartford,
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Project:
Gelderland Central Power Station

Part of Structure:
Boiler House and Turbine Pedestal support structures

Job Ref.:
C2002

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Calc. by:
5.1.2e

Date:
18/08/22

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Date:
18/08/22

Ref.

Calculations

Output

Node/Case	UX (mm)	UY (mm)	UZ (mm)	RX (Rad)	RY (Rad)	RZ (Rad)
55/ 1	5	-1	-2	-0.000	0.001	0.000
57/ 1	7	-1	-2	0.000	0.000	0.000
58/ 1	7	1	-2	-0.000	0.000	-0.000
59/ 1	7	-1	-2	0.000	-0.000	-0.000
60/ 1	7	1	-2	-0.000	-0.000	0.000
61/ 1	7	2	-1	-0.000	0.000	-0.000
62/ 1	7	-2	-1	0.000	0.000	0.000
63/ 1	8	-0	-7	-0.000	0.000	0.000
64/ 1	8	-0	-7	0.000	0.000	0.000
65/ 1	8	-0	-3	0.000	0.000	0.000
66/ 1	8	0	-7	-0.000	0.000	-0.000
67/ 1	8	0	-7	0.000	0.000	-0.000
68/ 1	9	-2	-4	-0.000	0.000	0.000
69/ 1	9	2	-4	0.000	0.000	-0.000
70/ 1	9	1	-4	-0.000	0.000	-0.000
71/ 1	9	-1	-4	0.000	0.000	0.000
72/ 1	8	-1	-8	0.000	0.000	0.000
73/ 1	8	1	-8	-0.000	0.000	-0.000
74/ 1	8	0	-8	0.000	0.000	-0.000
75/ 1	8	-0	-8	-0.000	0.000	0.000
76/ 1	12	0	-7	-0.002	0.001	-0.000
77/ 1	12	0	-13	0.001	-0.000	-0.000
78/ 1	12	0	-8	0.000	0.002	0.000
79/ 1	12	-0	-7	0.000	0.002	0.000
80/ 1	12	-0	-8	-0.000	0.002	0.000
81/ 1	12	-0	-13	-0.001	-0.000	0.000
82/ 1	12	-0	-7	0.002	0.001	0.000
83/ 1	11	-0	-3	0.000	0.001	0.000
84/ 1	12	-0	-11	0.002	0.001	0.000
85/ 1	12	-0	-13	-0.000	0.001	-0.000
86/ 1	12	-0	-13	0.000	0.002	0.000
87/ 1	12	0	-13	0.000	0.001	0.000
88/ 1	12	0	-11	-0.002	0.001	-0.000
89/ 1	11	0	-3	-0.000	0.001	-0.000
90/ 1	11	-0	-2	-0.000	-0.001	-0.000
91/ 1	12	-0	-11	-0.002	-0.001	0.000
92/ 1	12	0	-15	0.000	-0.001	-0.000
93/ 1	12	-0	-17	0.000	-0.001	0.000
94/ 1	12	-0	-15	-0.000	-0.001	0.000
95/ 1	11	0	-11	0.002	-0.001	-0.000
96/ 1	11	0	-2	0.000	-0.001	0.000
97/ 1	11	-0	-3	0.001	0.000	-0.000
98/ 1	11	-0	-5	0.001	0.000	-0.000
99/ 1	12	-0	-10	0.001	0.001	0.000
100/ 1	12	-0	-11	0.001	0.001	0.000
101/ 1	12	-0	-13	-0.000	0.001	0.000
102/ 1	12	0	-11	-0.001	0.001	-0.000
103/ 1	12	0	-10	-0.001	0.001	-0.000
104/ 1	11	0	-5	-0.001	0.000	0.000
105/ 1	12	0	-3	-0.001	0.000	0.000
106/ 1	11	-0	-10	0.000	0.001	-0.000
107/ 1	11	-0	-8	0.001	0.000	-0.000



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Project:
Gelderland Central Power Station

Part of Structure:
Boiler House and Turbine Pedestal support structures

Job Ref.:
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18/08/22

Ref.

Calculations

Output

Node/Case	UX (mm)	UY (mm)	UZ (mm)	RX (Rad)	RY (Rad)	RZ (Rad)
108/ 1	11	-0	-3	0.000	0.000	0.000
109/ 1	11	0	-8	-0.001	0.000	0.000
110/ 1	11	0	-10	-0.000	0.001	0.000
111/ 1	12	3	-6	-0.000	0.000	0.000
112/ 1	17	2	-10	-0.000	0.001	-0.000
113/ 1	17	-2	-10	0.000	0.001	0.000
114/ 1	12	-3	-6	0.000	0.000	-0.000
115/ 1	14	5	-13	-0.000	0.000	-0.002
116/ 1	19	-0	-8	-0.000	0.001	-0.000
117/ 1	14	-5	-13	0.000	0.000	0.002
118/ 1	13	-0	-16	0.002	0.001	0.001
119/ 1	16	-0	-22	-0.001	0.005	0.000
120/ 1	19	-0	-14	-0.000	0.002	0.000
121/ 1	16	0	-22	0.001	0.005	-0.000
122/ 1	13	0	-16	-0.002	0.001	-0.001
123/ 1	15	1	-33	-0.000	-0.001	-0.000
124/ 1	17	1	-32	0.000	-0.001	-0.000
125/ 1	17	-1	-32	-0.000	-0.001	0.000
126/ 1	15	-1	-33	0.000	-0.001	0.000
127/ 1	13	0	-16	0.003	-0.002	-0.000
128/ 1	16	0	-27	-0.000	-0.002	0.001
129/ 1	19	-0	-22	-0.000	-0.001	0.000
130/ 1	16	-0	-27	0.000	-0.002	-0.001
131/ 1	13	-0	-16	-0.003	-0.002	0.000
132/ 1	13	3	-6	0.000	0.001	-0.001
133/ 1	19	-0	-11	-0.000	0.002	-0.000
134/ 1	13	-3	-6	-0.000	0.001	0.001
135/ 1	13	3	-5	-0.000	0.001	-0.000
136/ 1	13	-3	-6	0.000	0.001	0.000
137/ 1	14	-2	-6	0.000	0.000	0.000
138/ 1	14	2	-6	-0.000	0.000	-0.000
139/ 1	14	1	-12	-0.000	0.001	-0.000
140/ 1	14	-1	-12	0.000	0.001	0.000
141/ 1	14	-0	-11	0.000	0.001	-0.000
142/ 1	14	0	-11	-0.000	0.001	0.000
143/ 1	21	0	-8	0.000	0.001	-0.001
145/ 1	30	-0	-11	-0.000	0.001	-0.000
147/ 1	21	-0	-8	-0.000	0.001	0.001
148/ 1	22	1	-14	0.001	0.001	-0.001
149/ 1	32	0	-9	-0.000	0.001	-0.000
150/ 1	31	-0	-8	0.000	0.002	-0.000
151/ 1	33	-0	-9	0.000	0.001	0.000
152/ 1	22	-1	-14	-0.001	0.001	0.001
153/ 1	31	-0	-18	-0.000	0.002	0.000
154/ 1	25	1	-67	0.004	-0.009	-0.001
155/ 1	29	-0	-43	0.007	0.003	-0.001
156/ 1	29	0	-43	-0.007	0.003	0.001
157/ 1	25	-1	-67	-0.004	-0.009	0.001
158/ 1	22	-0	-8	0.000	0.000	0.002
159/ 1	33	-0	-10	0.000	0.000	0.001
160/ 1	31	0	-11	-0.000	0.000	-0.000
161/ 1	32	0	-10	-0.000	0.000	-0.001

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002		
	Part of Structure: Boiler House and Turbine Pedestal support structures						Sheet No./rev.:
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22			
Ref.	Calculations					Output	

Node/Case	UX (mm)	UY (mm)	UZ (mm)	RX (Rad)	RY (Rad)	RZ (Rad)
162/ 1	22	0	-8	-0.000	0.000	-0.001
163/ 1	21	-3	-7	0.000	0.000	0.000
164/ 1	21	3	-7	-0.000	0.000	-0.000
165/ 1	22	2	-16	-0.000	0.000	0.000
166/ 1	22	-2	-16	0.000	0.000	-0.000
167/ 1	23	-2	-13	0.000	0.000	-0.000
168/ 1	23	2	-13	-0.000	0.000	0.000
169/ 1	23	-3	-14	0.000	0.000	-0.000
170/ 1	25	-0	-10	0.000	0.001	0.000
171/ 1	23	3	-14	-0.000	0.000	0.000
172/ 1	22	1	-9	0.000	0.000	-0.002
173/ 1	30	1	-9	-0.000	0.000	-0.001
175/ 1	31	-1	-9	0.000	0.000	0.001
176/ 1	22	-1	-9	-0.000	0.000	0.002
177/ 1	22	0	-9	0.000	0.000	-0.002
178/ 1	22	-0	-9	-0.000	0.000	0.002
179/ 1	22	4	-9	-0.000	-0.000	0.000
180/ 1	22	-4	-9	0.000	-0.000	-0.000
181/ 1	22	-3	-7	-0.000	-0.000	0.000
182/ 1	22	3	-7	0.000	-0.000	-0.000
183/ 1	22	2	-19	0.000	-0.000	0.000
184/ 1	22	-2	-19	-0.000	-0.000	-0.000
185/ 1	22	-4	-17	0.000	-0.000	-0.001
186/ 1	22	4	-17	-0.000	-0.000	0.001
187/ 1	22	7	-14	-0.000	-0.000	0.000
188/ 1	22	-7	-15	0.000	-0.000	-0.000
189/ 1	22	-0	-9	-0.000	-0.000	-0.002
190/ 1	34	-0	-15	-0.000	-0.000	-0.001
191/ 1	34	0	-15	0.000	-0.000	0.001
192/ 1	22	0	-9	0.000	-0.000	0.002
193/ 1	22	-0	-14	0.000	0.000	-0.002
194/ 1	37	-0	-9	0.000	0.000	-0.001
195/ 1	47	-0	-8	0.000	0.001	-0.000
196/ 1	37	-0	-9	-0.000	0.000	0.001
197/ 1	22	-0	-14	-0.000	0.000	0.001
198/ 1	36	-5	-17	0.002	0.001	-0.000
199/ 1	41	-3	-23	0.000	0.002	0.001
200/ 1	41	3	-24	0.000	0.002	-0.001
201/ 1	36	5	-18	-0.002	0.001	0.000
202/ 1	22	-0	-9	-0.000	-0.000	-0.002
203/ 1	37	-0	-17	-0.002	-0.002	-0.002
204/ 1	46	0	-25	0.000	-0.002	0.000
205/ 1	36	0	-17	0.002	-0.002	0.002
206/ 1	22	0	-9	0.000	-0.000	0.002
207/ 1	21	0	-9	-0.000	-0.000	-0.002
208/ 1	21	-0	-9	0.000	-0.000	0.002
209/ 1	20	1	-8	0.000	0.000	-0.000
210/ 1	20	-1	-8	-0.000	0.000	0.000
211/ 1	19	-1	-22	-0.000	-0.000	-0.000
212/ 1	19	1	-22	0.000	-0.000	0.000
213/ 1	19	6	-15	0.001	-0.001	0.000
214/ 1	19	-6	-15	-0.001	-0.001	-0.000



BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

App'd by:
5.1.2e

Date:
18/08/22

Ref.

Calculations

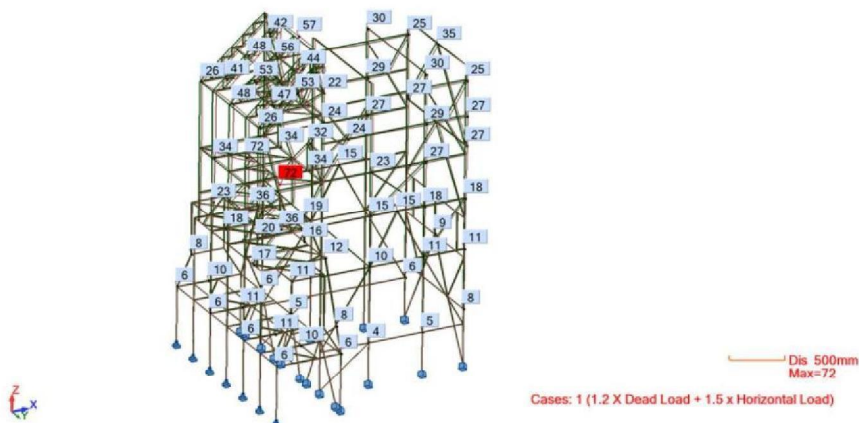
Output

Node/Case	UX (mm)	UY (mm)	UZ (mm)	RX (Rad)	RY (Rad)	RZ (Rad)
215/ 1	20	1	-9	-0.001	-0.000	-0.002
216/ 1	29	1	-15	-0.001	0.001	-0.001
217/ 1	35	0	-17	-0.000	-0.000	0.000
218/ 1	29	-1	-15	0.001	-0.000	0.001
219/ 1	20	-1	-10	0.001	-0.000	0.002
220/ 1	21	0	-9	0.000	0.000	-0.000
221/ 1	21	0	-9	-0.000	0.000	0.000
222/ 1	19	-0	-23	-0.000	-0.000	-0.000
223/ 1	18	-0	-23	0.000	-0.000	0.000
224/ 1	17	-0	-16	0.002	-0.001	0.000
225/ 1	19	-0	-30	0.000	-0.000	0.000
226/ 1	17	0	-16	-0.002	-0.001	-0.000
227/ 1	22	-3	-15	-0.001	0.001	-0.001
228/ 1	23	-2	-15	-0.001	0.000	-0.000
229/ 1	23	-3	-15	-0.001	0.000	-0.001
230/ 1	24	-0	-16	-0.002	0.000	-0.001
231/ 1	23	-3	-15	-0.001	-0.000	-0.001
232/ 1	23	-1	-15	-0.001	-0.001	-0.003
233/ 1	22	-2	-13	-0.001	-0.001	-0.000
234/ 1	21	-1	-13	-0.001	-0.001	0.000
235/ 1	21	-2	-12	-0.001	-0.001	-0.001
236/ 1	20	2	-12	-0.002	-0.001	-0.001
237/ 1	19	-1	-10	-0.000	-0.000	-0.000
238/ 1	19	0	-10	-0.001	-0.000	-0.003
239/ 1	37	0	-12	0.001	0.001	0.001
240/ 1	40	-0	-12	-0.000	0.001	0.000
241/ 1	40	-0	-15	-0.000	0.001	-0.000
242/ 1	42	1	-15	-0.001	0.001	-0.001
243/ 1	42	-1	-18	-0.000	0.001	-0.001
244/ 1	45	-1	-18	-0.000	0.001	-0.002
245/ 1	45	-2	-20	0.001	0.000	0.001
246/ 1	47	-3	-20	0.001	0.001	0.000
247/ 1	42	-1	-18	0.000	-0.002	0.001
248/ 1	40	3	-13	-0.003	0.000	-0.002
249/ 1	40	0	-15	0.000	0.001	0.000
250/ 1	42	0	-15	-0.001	0.001	-0.003
251/ 1	47	-0	-11	0.000	0.001	0.000
252/ 1	49	-1	-11	0.000	0.001	-0.000
253/ 1	50	-0	-14	0.000	0.001	0.000
254/ 1	52	-1	-14	0.000	0.001	0.000
255/ 1	52	-0	-15	0.000	0.001	0.000
256/ 1	53	-1	-15	0.000	0.000	0.000
257/ 1	53	-0	-17	0.000	0.000	0.000
258/ 1	54	0	-16	-0.000	0.000	0.000
259/ 1	53	-0	-17	-0.000	-0.000	-0.000
260/ 1	54	1	-17	-0.001	0.000	-0.001
261/ 1	54	-0	-17	-0.000	0.001	-0.000
262/ 1	54	0	-17	-0.000	0.000	-0.001
263/ 1	37	-0	-11	-0.001	0.001	-0.001
264/ 1	38	-0	-11	0.000	0.001	-0.000
265/ 1	39	-0	-13	0.000	0.001	0.000
266/ 1	40	-2	-13	0.001	0.001	0.000

 Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152		Project: Gelderland Central Power Station				Job Ref.: C2002	
		Part of Structure: Boiler House and Turbine Pedestal support structures				Sheet No./rev.:	
		Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output	

Node/Case	UX (mm)	UY (mm)	UZ (mm)	RX (Rad)	RY (Rad)	RZ (Rad)
267/ 1	40	0	-14	0.001	0.000	0.001
268/ 1	41	-1	-14	0.000	0.000	0.002
269/ 1	41	1	-15	0.001	0.000	0.001
270/ 1	42	-3	-15	0.002	0.000	0.000
271/ 1	41	0	-15	0.002	-0.000	0.002
272/ 1	42	-7	-15	0.004	0.000	0.003
273/ 1	41	1	-15	0.000	0.000	0.001
274/ 1	48	-0	-16	0.001	0.000	0.006
275/ 1	22	3	-15	0.001	0.001	0.001
276/ 1	23	1	-15	0.001	0.000	0.000
277/ 1	23	2	-15	0.001	0.000	0.001
278/ 1	23	-2	-15	0.002	-0.000	0.001
279/ 1	23	2	-15	0.002	-0.000	0.001
280/ 1	22	-1	-15	0.000	-0.000	0.002
281/ 1	22	2	-14	0.001	-0.000	0.000
282/ 1	21	0	-14	0.001	-0.001	0.000
283/ 1	21	1	-12	0.001	-0.001	0.000
284/ 1	20	-1	-12	0.001	-0.001	0.001
285/ 1	20	1	-10	0.000	-0.001	0.000
286/ 1	19	-0	-10	0.001	-0.001	0.002
290/ 1	11	0	-13	-0.001	0.000	-0.000
291/ 1	22	-0	-8	-0.000	0.001	-0.000
293/ 1	22	0	-8	0.000	0.001	0.000
295/ 1	11	-0	-13	0.001	0.000	0.000
296/ 1	9	-1	-4	0.000	0.000	0.000
301/ 1	7	-1	-4	-0.000	0.000	-0.000
311/ 1	22	-0	-15	-0.001	-0.001	-0.001
312/ 1	22	-3	-13	-0.001	-0.001	-0.001
314/ 1	42	-0	-15	0.001	0.000	0.006
316/ 1	6	0	-8	-0.000	-0.001	-0.000
317/ 1	5	-0	-8	-0.000	0.001	0.000
318/ 1	5	0	-9	0.000	-0.001	-0.000
319/ 1	5	-0	-8	0.000	0.001	0.000
320/ 1	5	-0	-9	-0.000	-0.001	0.000
321/ 1	5	0	-8	0.000	0.001	-0.000
322/ 1	6	-0	-8	0.000	-0.001	0.000
323/ 1	6	-0	-6	-0.000	0.001	0.000
324/ 1	5	-0	-8	0.000	0.001	0.000
325/ 1	5	0	-8	-0.000	0.001	-0.000
326/ 1	6	0	-6	0.000	0.001	-0.000
327/ 1	5	0	-9	-0.000	-0.001	-0.000
328/ 1	5	-0	-9	0.000	-0.001	0.000
329/ 1	5	-0	-9	0.000	-0.001	0.000

View - Deformation, Cases: 1 (1.2 X Dead Load + 1.5 x Horizontal Load)



 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures					
	Calc. by: 5.1.2e		Date: 18/08/22		App'd by: 5.1.2e	
				Date: 18/08/22		
Ref.	Calculations					Output

forces: values							
- Case: 1 (1.2 X Dead Load + 1.5 x Horizontal Load)							
Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)	
1/ 1	1398.17	2.27	-31.13	0.0	0.0	-0.00	
1/ 4	1323.89	2.27	-31.13	0.0	-404.65	-29.48	
6/ 2	3676.27	-8.77	-26.65	0.0	0.0	0.0	
6/ 4	3601.99	-8.77	-26.65	0.0	-346.51	113.99	
7/ 4	2812.92	44.71	-62.33	0.01	576.03	232.33	
7/ 7	2701.49	44.71	-62.33	0.01	-639.47	-639.53	
9/ 2	824.69	28.05	-17.32	0.44	0.10	474.44	
9/ 1	696.90	26.68	-23.51	-0.14	-297.32	-1.95	
10/ 1	96.85	-0.72	-15.40	0.02	155.10	-5.98	
10/ 1	62.05	-0.72	-15.40	0.02	-88.19	5.36	
11/ 3	4212.13	2.23	-26.20	0.0	0.0	0.0	
11/ 4	4137.85	2.23	-26.20	0.0	-340.60	-29.05	
12/ 4	3356.98	-5.87	-66.95	0.00	591.56	-28.89	
12/ 7	3245.56	-5.87	-66.95	0.00	-714.04	85.53	
13/ 7	1171.80	-7.14	-13.89	0.02	206.19	-96.00	
13/ 2	1131.81	-7.14	-13.89	0.02	108.94	-46.01	
14/ 2	1131.81	-7.14	-13.89	0.02	108.94	-46.01	
14/ 1	1071.81	-7.14	-13.89	0.02	-36.93	28.97	
15/ 1	179.13	1.22	-43.00	0.06	401.30	33.37	
15/ 1	88.84	1.22	-43.00	0.06	-278.02	14.06	
16/ 4	3983.11	-0.01	-26.14	0.0	0.0	0.0	
16/ 4	3908.83	-0.01	-26.14	0.0	-339.78	0.08	
17/ 4	3097.83	0.03	-69.46	-0.00	603.14	0.20	
17/ 7	2986.41	0.03	-69.46	-0.00	-751.37	-0.32	
18/ 7	950.66	-0.12	-114.47	0.00	727.82	-0.64	
18/ 1	910.67	-0.12	-114.47	0.00	-73.50	0.17	
19/ 1	860.81	-0.12	-67.05	0.00	78.84	0.17	
19/ 1	800.81	-0.12	-67.05	0.00	-625.18	1.41	
20/ 1	155.79	0.09	-36.08	0.00	462.00	1.50	
20/ 1	65.51	0.09	-36.08	0.00	-108.07	0.13	
21/ 5	4203.49	-2.25	-26.22	0.0	0.0	0.0	
21/ 4	4129.20	-2.25	-26.22	0.0	-340.81	29.19	
22/ 4	3348.13	5.96	-67.10	-0.00	592.69	29.58	
22/ 8	3236.70	5.96	-67.10	-0.00	-715.82	-86.70	
23/ 8	1162.85	7.03	-13.04	-0.02	197.65	95.72	
23/ 2	1122.85	7.03	-13.04	-0.02	106.36	46.49	
24/ 2	1122.85	7.03	-13.04	-0.02	106.36	46.49	
24/ 1	1062.85	7.03	-13.04	-0.02	-30.58	-27.35	
25/ 1	172.43	-0.86	-35.16	-0.06	370.34	-28.87	
25/ 1	82.15	-0.86	-35.16	-0.06	-185.12	-15.23	
26/ 6	3678.11	8.80	-26.66	0.0	0.0	0.0	
26/ 4	3603.83	8.80	-26.66	0.0	-346.59	-114.38	
27/ 4	2814.81	-44.75	-62.42	-0.01	576.84	-232.30	
27/ 8	2703.39	-44.75	-62.42	-0.01	-640.41	640.39	
28/ 2	826.91	-28.07	-17.30	-0.44	0.09	-475.01	
28/ 1	786.91	-28.07	-17.30	-0.44	-121.03	-278.53	
29/ 1	759.11	-26.70	-23.61	0.13	-50.34	-278.58	
29/ 1	699.12	-26.70	-23.61	0.13	-298.29	1.73	
30/ 1	99.32	0.73	-14.79	-0.02	152.23	6.12	

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152		Project: Gelderland Central Power Station			Job Ref.: C2002	
		Part of Structure: Boiler House and Turbine Pedestal support structures			Sheet No./rev.:	
		Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22	
Ref.	Calculations					Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
30/ 1	64.52	0.73	-14.79	-0.02	-81.39	-5.46
31/ 7	1398.65	-2.26	-31.17	0.0	0.0	-0.00
31/ 4	1324.37	-2.26	-31.17	0.0	-405.15	29.40
32/ 4	621.43	4.91	-43.56	0.04	395.26	40.36
32/ 5	584.94	4.91	-61.29	0.04	-12.70	2.15
33/ 5	517.33	4.33	-7.45	-0.03	-57.19	1.91
33/ 8	452.16	4.33	-7.45	-0.03	-150.31	-52.18
34/ 3	775.52	-3.79	49.42	-0.01	-228.38	-24.02
34/ 6	739.02	-3.79	27.00	-0.01	85.55	7.07
35/ 6	601.25	4.37	60.57	0.03	-283.19	-6.03
35/ 9	536.08	4.37	60.57	0.03	473.91	-60.62
36/ 4	621.93	-4.90	-43.53	-0.04	395.21	-40.27
36/ 6	585.44	-4.90	-61.25	-0.04	-12.49	-2.15
37/ 6	517.55	-4.31	-7.64	0.03	-56.00	-1.92
37/ 8	452.38	-4.31	-7.64	0.03	-151.48	51.99
39/ 3	774.91	3.77	49.29	0.01	-227.67	23.83
39/ 6	738.42	3.77	26.87	0.01	85.15	-7.11
40/ 6	600.90	-4.35	60.37	-0.03	-281.90	6.07
40/ 9	535.73	-4.35	60.37	-0.03	472.70	60.46
42/ 1	4486.83	98.25	102.28	-18.37	-1101.28	643.61
42/ 3	4284.20	98.25	102.28	-18.37	228.40	-633.63
44/ 1	5731.19	60.87	146.56	-12.75	-1209.56	382.30
44/ 3	5758.71	60.86	-5.75	-11.60	-12.26	-409.02
45/ 3	6739.90	83.90	-1.37	0.0	0.0	0.0
45/ 1	6509.38	84.03	249.48	-13.21	518.43	-1706.05
46/ 1	5458.22	167.66	-81.09	15.64	483.92	997.79
46/ 1	5382.86	167.66	-81.09	15.64	-2.59	-8.14
47/ 1	5378.24	6.38	-84.51	0.0	0.0	0.0
47/ 1	6072.23	0.26	44.25	0.0	-0.00	-0.00
48/ 1	6072.23	0.26	44.25	0.0	0.0	0.0
48/ 1	2870.74	40.87	-9.34	22.65	-11.71	279.42
49/ 1	2865.42	102.71	-10.00	24.51	-11.27	290.49
49/ 1	2734.37	119.80	115.50	178.60	600.79	-599.49
50/ 1	1897.37	506.99	118.73	291.33	627.97	117.08
50/ 2	1593.28	216.65	12.66	-51.14	-9.73	-1165.54
51/ 1	5742.82	-60.83	146.24	12.34	-1207.37	-381.99
51/ 3	5762.37	-60.98	-5.70	11.35	-12.20	409.35
52/ 3	6746.95	-83.91	-1.06	0.0	0.0	0.0
52/ 9	6521.19	-83.27	251.26	15.04	517.36	1702.20
53/ 9	5471.47	-167.60	-80.95	-15.72	483.08	-997.51
53/ 1	5396.11	-167.60	-80.95	-15.72	-2.61	8.12
54/ 1	5391.49	-5.06	-84.39	0.0	0.0	0.0
54/ 1	6085.60	0.55	43.85	0.0	-0.00	-0.00
55/ 1	6085.60	0.55	43.85	0.0	0.0	0.0
55/ 1	2876.75	-41.07	-9.59	-14.47	-11.76	-279.59
56/ 1	2871.43	-102.45	-10.28	-16.33	-11.39	-290.67
56/ 1	2740.40	-119.63	115.95	-171.56	602.63	597.76
57/ 1	1901.64	-508.33	117.97	-279.14	629.01	-123.57
57/ 2	1598.98	-218.08	9.17	62.60	-6.28	1177.33
58/ 8	4486.85	-98.35	101.97	18.17	-1097.93	-643.92
58/ 3	4284.22	-98.35	101.97	18.17	227.68	634.60
60/ 1	5187.55	2.46	148.90	-7.13	-967.76	45.13



Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Part of Structure:
Boiler House and Turbine Pedestal support structures

Job Ref.:
C2002

Sheet No./rev.:

Calc. by:
S.1.2e

Date:
18/08/22

App'd by:
S.1.2e

Date:
18/08/22

Ref.

Calculations

Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
60/ 2	5085.92	2.46	148.90	-7.13	431.94	22.04
61/ 2	4313.71	2.03	9.97	-7.42	-4.30	21.99
61/ 2	2897.30	4.87	15.63	0.06	-306.04	59.91
62/ 2	2897.30	4.87	15.63	0.06	-306.04	59.91
62/ 1	2765.71	4.87	15.63	0.06	-115.83	0.60
63/ 1	2830.31	11.35	169.32	-41.42	-853.07	0.58
63/ 1	2716.78	11.35	169.32	-41.42	924.81	-118.63
64/ 1	3011.60	0.77	-77.11	-26.76	845.32	-118.14
64/ 1	2914.30	0.77	-77.11	-26.76	151.37	-125.05
65/ 1	2775.66	-5.37	-231.08	-23.71	641.35	-125.12
65/ 2	2683.76	-5.37	-231.08	-23.71	-1322.79	-79.44
66/ 2	2695.23	-20.60	-0.00	0.0	0.00	-72.10
66/ 2	2657.38	-20.60	-0.00	0.0	-0.00	-0.00
67/ 1	5182.40	-2.61	149.82	7.38	-969.52	-47.13
67/ 2	5080.76	-2.61	149.82	7.38	438.83	-22.63
68/ 2	4310.63	-2.21	8.08	7.88	5.23	-22.58
68/ 7	4117.09	-2.21	8.08	7.88	149.89	17.07
69/ 7	2895.53	-5.06	11.91	-0.08	-272.94	-62.82
69/ 1	2763.62	-5.06	11.91	-0.08	-127.65	-1.14
70/ 1	2825.53	-11.55	170.71	41.86	-861.84	-1.13
70/ 1	2712.00	-11.55	170.71	41.86	930.57	120.18
71/ 1	3005.04	-0.66	-78.28	26.38	852.42	119.67
71/ 1	2907.73	-0.66	-78.28	26.38	147.93	125.60
72/ 1	2769.31	5.43	-231.78	23.38	642.13	125.67
72/ 2	2677.40	5.43	-231.78	23.38	-1327.99	79.52
73/ 2	2695.23	20.60	-0.00	0.0	0.00	72.10
73/ 2	2657.38	20.60	-0.00	0.0	-0.00	-0.00
74/ 2	8172.14	-1.22	223.19	-11.22	-1357.68	5.66
74/ 2	8070.51	-1.22	223.19	-11.22	740.29	17.10
75/ 2	8051.26	1.06	-20.76	-3.82	286.64	17.11
75/ 7	7857.72	1.06	-20.76	-3.82	-84.96	-1.83
76/ 7	10490.45	1.58	4.45	3.50	-337.66	26.44
76/ 1	10358.54	1.58	4.45	3.50	-283.35	7.13
77/ 1	10082.73	4.95	150.61	35.10	-560.74	7.13
77/ 1	9969.20	4.95	150.61	35.10	1020.64	-44.84
78/ 1	9918.06	8.01	-54.08	70.38	718.65	-42.34
78/ 1	9820.75	8.01	-54.08	70.38	231.91	-114.44
79/ 1	9850.24	-4.78	-180.73	38.87	646.28	-114.52
79/ 2	9758.33	-4.78	-180.73	38.87	-889.95	-73.92
80/ 2	12355.23	-16.85	0.00	0.0	-0.00	-58.96
80/ 2	12317.38	-16.85	0.00	0.0	0.00	0.00
81/ 2	8175.87	1.20	222.11	11.38	-1352.86	-5.84
81/ 2	8074.23	1.20	222.11	11.38	734.96	-17.17
82/ 2	8055.07	-1.05	-19.77	4.01	281.83	-17.17
82/ 7	7861.53	-1.05	-19.77	4.01	-72.06	1.71
83/ 7	10490.81	-1.47	6.28	-2.98	-355.22	-25.11
83/ 1	10358.90	-1.47	6.28	-2.98	-278.66	-7.17
84/ 1	10085.15	-4.94	150.70	-34.81	-558.87	-7.17
84/ 1	9971.62	-4.94	150.70	-34.81	1023.43	44.69
85/ 1	9922.63	-8.03	-54.99	-70.18	723.41	42.20
85/ 1	9825.32	-8.03	-54.99	-70.18	228.47	114.51
86/ 1	9854.56	4.79	-181.23	-38.82	646.75	114.60

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152		Project: Gelderland Central Power Station			Job Ref.: C2002	
		Part of Structure: Boiler House and Turbine Pedestal support structures			Sheet No./rev.:	
		Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22	
Ref.	Calculations					Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
86/ 2	9762.66	4.79	-181.23	-38.82	-893.70	73.89
87/ 2	12355.23	16.85	0.00	0.0	-0.00	58.96
87/ 2	12317.38	16.85	0.00	0.0	0.00	-0.00
88/ 2	13725.05	-78.54	374.30	-7.32	-2372.83	-437.74
88/ 4	10465.59	-80.58	-58.10	3.58	601.20	590.66
89/ 4	10479.04	101.91	-58.09	3.38	601.14	473.32
89/ 6	10288.88	101.91	-58.09	3.38	-107.60	-770.00
90/ 6	11096.31	-117.67	-58.09	3.41	-107.46	-299.19
90/ 1	10792.37	-119.51	29.05	31.27	-552.99	789.09
91/ 1	10998.06	-76.55	29.04	32.29	-553.15	-311.98
91/ 1	7890.14	-91.77	-144.82	90.85	1110.05	1111.31
92/ 1	4019.11	381.31	-144.82	98.65	1110.15	1313.95
92/ 2	3552.69	408.77	-0.03	-12.76	-0.05	-6223.78
93/ 2	13714.19	78.29	373.62	7.11	-2367.87	436.05
93/ 3	10454.23	80.31	-58.08	-3.77	600.34	-588.96
94/ 3	10467.70	-101.79	-58.07	-3.49	600.28	-471.70
94/ 6	10277.54	-101.79	-58.07	-3.49	-108.23	770.14
95/ 6	11084.82	117.62	-58.08	-3.39	-108.09	299.89
95/ 1	10785.19	119.74	26.32	-33.48	-560.39	-789.64
96/ 1	10990.54	76.93	26.31	-34.44	-560.55	311.15
96/ 1	7889.79	91.84	-145.23	-90.77	1110.95	-1111.12
97/ 1	4018.68	-381.33	-145.23	-98.46	1111.05	-1313.87
97/ 2	3552.68	-408.72	0.02	12.13	-0.05	6223.71
98/ 4	-244.61	-3.27	766.00	17.47	-799.92	-17.41
98/ 3	-261.39	8.15	-659.98	0.0	0.00	-0.00
99/ 4	-0.68	0.97	783.21	34.46	-922.53	0.25
99/ 5	4.20	5.52	-661.52	0.0	0.00	0.00
100/ 4	-5.74	0.78	775.93	-6.11	-932.16	0.34
100/ 5	-1.02	2.93	-655.29	0.0	0.00	0.00
101/ 4	-8.26	-0.01	795.24	0.03	-942.92	-0.00
101/ 3	6.14	-0.01	-667.75	0.0	0.00	-0.00
102/ 4	-5.87	-0.80	776.09	6.27	-933.50	-0.35
102/ 5	-1.07	-2.95	-655.24	0.0	0.00	-0.00
103/ 4	-0.77	-0.99	783.21	-34.37	-923.43	-0.26
103/ 4	3.96	-5.54	-661.43	0.0	0.00	-0.00
104/ 4	-244.76	3.25	766.04	-17.40	-800.37	17.37
104/ 3	-261.51	-8.17	-659.96	0.0	0.00	0.00
105/ 4	0.63	-0.05	17.94	0.00	-48.30	-0.26
105/ 4	0.63	-0.05	5.74	0.00	46.41	0.11
106/ 4	-53.82	-0.05	11.60	0.00	-37.47	-0.15
106/ 4	-53.82	-0.05	-0.60	0.00	6.51	0.24
107/ 4	-46.50	-0.03	4.33	0.00	0.24	-0.10
107/ 4	-46.50	-0.03	-7.87	0.00	-13.90	0.17
108/ 4	-46.52	0.03	7.89	-0.00	-13.99	0.17
108/ 4	-46.52	0.03	-4.31	-0.00	0.33	-0.10
109/ 4	-53.93	0.05	0.67	-0.00	6.20	0.25
109/ 4	-53.93	0.05	-11.53	-0.00	-37.21	-0.16
110/ 4	0.62	0.05	-5.72	-0.00	46.34	0.11
110/ 4	0.62	0.05	-17.92	-0.00	-48.20	-0.26
111/ 3	-967.80	-1.12	175.89	0.02	-654.09	-5.78
111/ 5	-967.80	-1.12	119.91	0.02	529.10	3.19
112/ 5	-962.28	-5.32	-541.61	0.02	529.10	3.19



BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

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Calculations

Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
112/ 3	-962.28	-5.32	-555.61	0.02	-568.11	13.83
113/ 3	-824.92	-1.05	392.75	-0.01	-1010.82	-4.00
113/ 5	-824.92	-1.05	350.77	-0.01	1219.74	2.27
114/ 5	-821.99	-0.02	-304.52	-0.01	1219.74	2.27
114/ 3	-821.99	-0.02	-360.49	-0.01	-1440.30	2.47
115/ 3	-821.94	0.01	360.56	0.01	-1440.36	2.43
115/ 5	-821.94	0.01	304.59	0.01	1220.23	2.35
116/ 5	-824.89	1.08	-350.65	0.01	1220.23	2.35
116/ 3	-824.89	1.08	-392.64	0.01	-1009.64	-4.14
117/ 3	-962.47	5.07	555.30	-0.02	-566.59	13.39
117/ 4	-962.47	5.07	541.30	-0.02	530.01	3.24
118/ 4	-968.02	1.11	-120.13	-0.02	530.01	3.24
118/ 3	-968.02	1.11	-176.10	-0.02	-654.90	-5.68
119/ 5	303.24	0.58	-17.95	0.00	44.50	1.00
119/ 6	303.24	0.58	-42.59	0.00	-197.64	-3.65
120/ 6	303.24	-0.59	-17.71	-0.00	43.51	-1.01
120/ 6	303.24	-0.59	-42.35	-0.00	-196.75	3.67
121/ 8	48.67	-0.08	439.93	0.01	-144.59	-0.24
121/ 9	48.67	-0.08	-520.71	0.01	-467.73	0.38
122/ 7	157.30	-17.31	1957.32	-73.86	-639.62	10.19
122/ 1	84.92	-42.84	-1856.90	0.0	-0.00	0.00
123/ 7	158.87	10.59	1971.59	15.03	-920.34	0.15
123/ 1	34.13	15.02	-1849.42	0.0	-0.00	0.00
124/ 7	59.88	0.04	2026.87	-0.00	-1479.20	0.00
124/ 1	-19.75	0.01	-1824.99	0.0	-0.00	0.00
125/ 8	159.87	-10.56	1971.17	-14.98	-913.59	-0.14
125/ 9	34.07	-15.04	-1849.85	0.0	0.0	-0.00
126/ 8	157.40	17.20	1957.45	74.57	-640.56	-10.18
126/ 9	85.84	42.86	-1856.89	0.0	0.00	-0.00
127/ 8	48.66	0.08	440.22	-0.01	-145.76	0.24
127/ 9	48.66	0.08	-520.42	-0.01	-466.54	-0.37
128/ 7	62.02	-10.03	744.17	0.15	-713.39	-10.19
128/ 7	79.37	-0.76	-94.44	-0.12	-216.28	0.38
129/ 7	70.06	0.05	7.72	-0.00	-19.72	0.21
129/ 7	70.06	0.05	-4.48	-0.00	-6.74	-0.21
130/ 7	70.16	-0.05	4.39	0.00	-6.43	-0.22
130/ 8	70.16	-0.05	-7.81	0.00	-20.08	0.21
131/ 8	79.65	0.76	94.88	0.12	-217.48	0.37
131/ 8	61.95	10.02	-745.93	-0.15	-714.96	-10.17
132/ 8	5.56	0.00	7.68	-0.00	-46.43	0.04
132/ 8	5.56	0.00	-4.52	-0.00	-33.82	0.01
133/ 8	5.34	-0.00	4.59	0.00	-34.16	0.01
133/ 8	5.34	-0.00	-7.61	0.00	-46.24	0.03
134/ 9	-7.41	0.21	10.76	0.01	-54.45	0.47
134/ 9	-7.41	0.21	-1.44	0.01	-17.20	-1.18
135/ 9	-7.24	-0.21	1.50	-0.01	-17.48	-1.17
135/ 9	-7.24	-0.21	-10.70	-0.01	-54.31	0.47
136/ 1	1097.00	-85.08	521.03	0.19	-1367.79	-7.09
136/ 1	1097.00	-85.08	499.34	0.19	-347.42	163.06
137/ 1	429.72	23.99	1127.55	-0.16	-3058.29	99.09
137/ 1	429.72	23.99	1062.50	-0.16	3511.87	-44.84
138/ 1	444.74	-10.14	-786.91	-0.16	3511.87	-44.84

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152		Project: Gelderland Central Power Station			Job Ref.: C2002	
		Part of Structure: Boiler House and Turbine Pedestal support structures			Sheet No./rev.:	
		Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22	
Ref.	Calculations					Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
138/ 1	433.82	-8.26	519.45	-0.10	4915.63	18.40
139/ 1	433.11	8.23	-519.30	0.10	4915.57	18.18
139/ 9	444.01	10.11	787.96	0.16	3514.97	-44.83
140/ 9	428.97	-23.95	-1061.89	0.16	3514.97	-44.83
140/ 9	428.97	-23.95	-1126.94	0.16	-3051.51	98.89
141/ 9	1097.06	85.99	-499.96	-0.19	-344.70	164.88
141/ 9	1097.06	85.99	-521.65	-0.19	-1366.31	-7.11
142/ 1	310.57	-0.85	600.84	0.0	-448.08	-13.29
142/ 1	310.57	-0.85	-693.76	0.0	-0.00	0.00
143/ 1	311.30	0.87	600.72	0.0	-446.18	13.71
143/ 1	311.30	0.87	-693.88	0.0	-0.00	-0.00
144/ 1	165.47	-0.81	882.00	-0.00	-439.11	-12.67
144/ 1	165.47	-0.81	-724.17	0.0	-0.00	0.00
145/ 1	172.21	0.82	879.62	0.00	-401.72	12.83
145/ 1	172.21	0.82	-726.55	0.0	-0.00	0.00
146/ 1	232.66	-0.12	636.10	0.00	-1087.20	-0.36
146/ 1	37.43	-0.00	-472.70	0.0	0.00	0.00
147/ 1	150.21	4.91	-2.95	0.00	9.45	13.28
147/ 1	150.21	4.91	-8.17	0.00	-23.91	-16.20
148/ 1	132.13	-0.80	2.51	-0.01	-0.40	-3.56
148/ 1	132.13	-0.80	-4.45	-0.01	-8.14	2.81
149/ 1	132.04	0.89	4.47	0.01	-8.23	3.17
149/ 1	132.04	0.89	-2.49	0.01	-0.33	-3.96
150/ 1	150.07	-5.08	8.30	-0.00	-24.34	-16.76
150/ 1	150.07	-5.08	3.08	-0.00	9.81	13.72
156/ 1	1.47	5.67	-2.95	-0.00	11.72	15.30
156/ 1	1.47	5.67	-8.17	-0.00	-21.64	-18.70
157/ 1	8.48	2.17	3.20	-0.00	-4.01	7.52
157/ 1	8.48	2.17	-3.76	-0.00	-6.28	-9.88
158/ 1	8.43	-2.21	3.87	0.00	-6.72	-10.09
158/ 1	8.43	-2.21	-3.09	0.00	-3.59	7.56
159/ 1	1.81	-5.77	8.49	0.00	-22.65	-18.78
159/ 1	1.81	-5.77	3.27	0.00	12.63	15.85
160/ 2	-14.40	119.28	129.79	0.69	-640.15	443.54
160/ 2	-14.40	119.28	98.51	0.69	44.76	-272.13
161/ 2	-101.88	5.11	58.86	-0.02	45.13	-271.29
161/ 2	-101.88	5.11	17.15	-0.02	349.21	-312.21
162/ 2	-101.42	-5.42	-17.97	-0.01	349.18	-312.21
162/ 2	-101.42	-5.42	-59.68	-0.01	38.57	-268.84
163/ 2	-13.47	-118.67	-96.01	-0.66	38.23	-269.67
163/ 2	-13.47	-118.67	-127.29	-0.66	-631.67	442.33
164/ 1	230.85	-0.99	136.29	0.04	-720.73	-62.55
164/ 1	230.85	-0.99	84.16	0.04	381.51	-52.68
165/ 1	-1071.03	0.63	21.47	-0.00	310.29	-93.25
165/ 1	-1071.03	0.63	-20.24	-0.00	315.24	-98.31
166/ 1	230.06	-0.18	-85.10	-0.03	386.35	-59.21
166/ 1	230.06	-0.18	-137.24	-0.03	-725.34	-57.41
167/ 2	1269.74	13.31	507.51	-0.42	-1145.60	-1.49
167/ 2	1269.74	13.31	-33.77	-0.42	275.60	-81.37
168/ 2	1076.28	1.47	256.78	0.25	251.89	-87.21
168/ 2	1076.28	1.47	-464.93	0.25	-580.71	-98.97
169/ 2	1077.83	-4.26	466.86	0.02	-580.94	-100.14

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures				Sheet No./rev.:	
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
169/ 2	1077.83	-4.26	-254.85	0.02	267.12	-66.06
170/ 2	1276.33	-8.26	30.30	0.06	284.38	-68.90
170/ 2	1276.33	-8.26	-510.98	0.06	-1157.67	-19.32
171/ 2	25.20	-0.19	-6.87	0.00	159.65	-1.15
171/ 2	25.20	-0.19	-61.18	0.00	-248.65	1.10
172/ 2	-964.52	0.25	6.61	0.00	83.40	1.31
172/ 2	-964.52	0.25	-53.13	0.00	-223.66	-1.97
173/ 2	-1208.47	-2.03	-33.89	0.01	229.99	-9.37
173/ 3	-1208.47	-2.03	-79.15	0.01	-335.18	10.90
174/ 2	27.31	0.15	-6.72	-0.00	158.99	0.99
174/ 2	27.31	0.15	-61.03	-0.00	-247.50	-0.86
175/ 2	-962.63	-0.24	6.74	-0.00	82.25	-1.28
175/ 2	-962.63	-0.24	-53.01	-0.00	-223.12	1.92
176/ 2	-1204.50	2.02	-33.85	-0.01	230.01	9.29
176/ 3	-1204.50	2.02	-79.11	-0.01	-334.78	-10.88
177/ 6	250.85	-0.13	-73.42	-69.32	759.23	13.21
177/ 7	250.85	-0.13	-190.82	-69.32	-826.20	14.76
178/ 7	1030.98	-1.82	115.40	4.51	-486.72	-9.86
178/ 7	1030.98	-1.82	-13.74	4.51	184.19	14.21
179/ 7	-87.14	-1.84	-59.59	31.25	549.46	9.50
179/ 7	-87.14	-1.84	-157.42	31.25	-535.61	27.86
180/ 6	252.32	-0.65	-78.18	69.25	774.10	-15.04
180/ 7	252.32	-0.65	-195.58	69.25	-868.43	-7.26
181/ 7	1027.48	1.76	114.11	-4.19	-461.57	8.97
181/ 7	1027.48	1.76	-15.03	-4.19	192.36	-14.26
182/ 7	-84.40	2.13	-55.28	-31.58	519.51	-8.83
182/ 7	-84.40	2.13	-153.11	-31.58	-522.46	-30.10
183/ 1	-509.11	4.33	-31.12	0.03	314.21	0.47
183/ 1	-509.11	4.33	-85.43	0.03	-385.12	-51.53
184/ 1	-265.81	-1.90	-91.36	0.01	352.12	-10.06
184/ 1	-696.15	-1.66	68.63	0.00	211.44	10.41
185/ 1	-26.02	-4.98	-83.67	0.00	488.83	-21.19
185/ 1	-26.02	-4.98	-128.93	0.00	-574.16	28.66
186/ 1	-510.32	-4.34	-31.12	-0.03	314.62	0.00
186/ 1	-510.32	-4.34	-85.43	-0.03	-384.65	52.05
187/ 1	-264.60	1.92	-90.81	-0.01	349.54	10.11
187/ 1	-690.94	1.67	68.47	-0.01	210.88	-10.42
188/ 1	-24.66	5.09	-84.19	-0.00	491.10	21.42
188/ 1	-24.66	5.09	-129.45	-0.00	-577.12	-29.51
189/ 1	183.03	-11.75	-5.89	-0.04	109.29	-128.63
189/ 1	183.03	-11.75	-60.20	-0.04	-287.28	12.42
190/ 1	-881.68	-4.52	-48.99	-0.06	320.20	-18.90
190/ 1	-881.68	-4.52	-94.25	-0.06	-395.97	26.26
191/ 1	183.82	12.08	-5.82	0.04	108.70	131.85
191/ 1	183.82	12.08	-60.13	0.04	-287.03	-13.12
192/ 1	-879.64	4.57	-48.83	0.06	319.49	18.86
192/ 1	-879.64	4.57	-94.09	0.06	-395.07	-26.82
193/ 1	-587.37	-1.21	42.62	-0.00	-155.98	-2.81
193/ 1	-587.37	-1.21	-11.00	-0.00	52.68	13.16
194/ 1	-587.03	1.23	42.78	0.00	-157.01	2.94
194/ 1	-587.03	1.23	-10.83	0.00	53.84	-13.30
195/ 1	125.49	-17.08	33.09	0.04	-37.46	-154.09



BROWN & MASON
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Project:
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Job Ref.:
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Part of Structure:
Boiler House and Turbine Pedestal support structures

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Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
195/ 1	85.54	-8.29	-33.65	0.06	-65.48	3.64
196/ 1	-68.43	-2.15	104.98	-0.01	-555.46	0.59
196/ 1	-68.43	-2.15	45.24	-0.01	435.99	28.95
197/ 1	-195.08	10.64	15.76	-0.10	21.62	60.46
197/ 1	-220.93	21.77	-49.48	-0.12	-139.64	-84.63
198/ 1	126.23	17.18	33.06	-0.04	-37.80	155.22
198/ 1	84.53	8.29	-33.12	-0.06	-63.45	-3.20
199/ 1	-68.97	2.20	105.31	0.01	-557.65	-0.21
199/ 1	-68.97	2.20	45.56	0.01	438.09	-29.26
200/ 1	-195.20	-10.62	16.32	0.10	19.81	-60.62
200/ 1	-221.47	-21.72	-49.47	0.12	-139.22	84.09
201/ 2	658.47	-10.11	13.06	0.01	-190.57	-92.56
201/ 2	658.47	-10.11	-36.10	0.01	-328.78	28.79
202/ 2	1164.52	-0.48	301.11	-0.00	-1753.62	5.26
202/ 2	1164.52	-0.48	247.03	-0.00	1864.05	11.56
203/ 2	44.50	4.14	-130.07	0.06	901.85	20.18
203/ 2	44.50	4.14	-171.04	0.06	-603.71	-21.19
204/ 2	649.23	10.04	13.49	-0.01	-194.79	92.14
204/ 2	649.23	10.04	-35.67	-0.01	-327.88	-28.37
205/ 2	1160.76	0.51	301.82	0.00	-1758.31	-5.05
205/ 2	1160.76	0.51	247.74	0.00	1868.80	-11.71
206/ 2	44.31	-4.11	-130.10	-0.06	902.49	-20.21
206/ 2	44.31	-4.11	-171.07	-0.06	-603.38	20.92
207/ 1	580.40	73.63	145.55	-0.05	-511.18	179.41
207/ 1	580.40	73.63	100.38	-0.05	349.57	-335.98
208/ 1	591.36	-82.43	24.42	-0.05	349.57	-335.98
208/ 1	591.36	-82.43	-20.74	-0.05	362.43	241.05
209/ 1	590.81	84.63	21.04	0.05	362.43	241.07
209/ 1	590.81	84.63	-24.13	0.05	351.60	-351.36
210/ 1	579.43	-77.61	-100.74	0.05	351.60	-351.36
210/ 1	579.43	-77.61	-145.90	0.05	-511.63	191.93
211/ 4	-182.49	-0.01	-13.45	0.06	117.34	0.20
211/ 3	-182.49	-0.01	-52.91	0.06	-134.86	0.25
212/ 3	1309.69	-0.00	33.22	0.00	-117.01	0.19
212/ 3	1309.69	-0.00	-33.24	0.00	-117.15	0.22
213/ 3	-182.10	0.00	52.93	-0.06	-135.02	0.30
213/ 3	-182.10	0.00	13.46	-0.06	117.26	0.28
214/ 6	-486.40	-0.01	313.26	-0.14	-470.80	-0.04
214/ 6	-486.40	-0.01	295.09	-0.14	593.81	-0.00
215/ 6	-477.57	-0.01	-102.04	-0.00	623.49	-0.01
215/ 6	-477.57	-0.01	-156.56	-0.00	-734.13	0.07
216/ 6	-477.53	-0.00	156.55	0.00	-734.15	0.07
216/ 6	-477.53	-0.00	102.03	0.00	623.41	0.10
217/ 6	-486.37	0.00	-294.90	0.14	593.69	0.10
217/ 6	-486.37	0.00	-313.07	0.14	-470.25	0.10
218/ 1	-125.40	0.00	-340.42	0.16	1101.08	-1.02
218/ 1	-125.40	0.00	-358.59	0.16	-122.19	-1.02
219/ 1	-134.23	-0.00	-4.55	-0.00	-68.83	-1.01
219/ 1	-134.23	-0.00	-59.07	-0.00	-402.82	-0.98
220/ 1	-134.23	-0.00	59.10	0.00	-402.85	-0.98
220/ 1	-134.23	-0.00	4.58	0.00	-68.53	-0.97
221/ 1	-125.39	-0.00	358.43	-0.16	-121.89	-0.97



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221/ 1	-125.39	-0.00	340.25	-0.16	1100.79	-0.96
222/ 1	-3274.54	-0.01	32.72	-0.10	-202.64	-7.80
222/ 1	-3274.54	-0.01	-48.99	-0.10	-316.56	-7.65
223/ 1	-3274.68	0.00	48.98	0.10	-316.54	-7.68
223/ 1	-3274.68	0.00	-32.73	0.10	-202.76	-7.69
224/ 2	408.77	-0.03	3552.69	-0.05	-6223.78	-12.76
224/ 2	408.77	-0.03	-3747.65	-0.05	-7588.49	-12.35
225/ 2	408.72	-0.02	3747.65	0.05	-7588.49	-12.48
225/ 2	408.72	-0.02	-3552.68	0.05	-6223.71	-12.13
226/ 2	-20.60	0.0	2657.38	0.0	0.0	0.0
226/ 2	-20.60	0.0	-2657.38	0.0	0.0	0.0
227/ 2	-16.85	0.0	12317.38	0.0	0.0	0.0
227/ 2	-16.85	0.0	-12317.38	0.0	0.0	0.0
230/ 6	1324.51	0.01	6.66	0.0	0.0	0.0
230/ 3	1355.09	0.01	-12.39	0.0	-41.14	-0.10
231/ 3	1354.69	-0.01	12.39	0.0	-41.13	-0.12
231/ 6	1324.11	-0.01	-6.66	0.0	0.0	0.0
232/ 3	330.44	0.00	18.92	0.0	-58.99	0.03
232/ 6	274.62	0.00	-10.36	0.0	0.0	0.0
233/ 6	274.53	-0.00	10.36	0.0	0.0	0.0
233/ 3	330.35	-0.00	-18.92	0.0	-59.00	0.05
234/ 6	397.13	-8.83	-0.00	0.00	-0.14	-29.68
234/ 1	354.04	-8.83	-0.00	0.00	-0.16	53.35
235/ 6	396.93	8.84	-0.00	-0.00	-0.13	29.71
235/ 1	353.84	8.84	-0.00	-0.00	-0.16	-53.37
236/ 6	163.57	0.00	0.00	-0.00	-0.01	0.02
236/ 1	118.17	0.00	0.00	-0.00	0.01	-0.02
237/ 1	156.65	0.01	20.23	0.0	0.0	0.0
237/ 1	89.78	0.01	-33.57	0.0	-148.98	-0.14
238/ 1	89.99	-0.00	33.57	0.0	-149.00	-0.11
238/ 1	156.86	-0.00	-20.23	0.0	0.0	0.0
239/ 1	4751.89	0.01	21.55	0.0	0.0	0.0
239/ 2	4678.87	0.01	-32.25	0.0	-126.19	-0.17
240/ 2	4678.94	0.00	32.25	0.0	-126.19	0.05
240/ 1	4751.96	0.00	-21.55	0.0	0.0	0.0
241/ 2	-284.31	0.20	23.10	0.0	0.0	0.0
241/ 7	-370.57	0.20	-34.73	0.0	-125.30	-4.27
242/ 7	3313.53	-0.01	28.43	0.0	-88.78	-0.22
242/ 3	3399.80	-0.01	-19.77	0.0	0.0	0.0
243/ 2	-278.78	0.0	28.92	0.0	0.0	0.0
243/ 7	-365.04	0.0	-28.92	0.0	0.0	0.0
244/ 7	3311.73	-0.00	24.10	0.0	0.0	0.0
244/ 3	3397.99	-0.00	-24.10	0.0	0.0	0.0
245/ 1	1141.26	1.20	7.66	6.44	4.00	5.88
245/ 7	1163.29	1.20	-14.01	6.44	-50.30	-14.72
246/ 7	-326.52	-0.49	8.28	0.74	-26.36	-2.95
246/ 1	-348.55	-0.49	-9.77	0.74	-38.13	4.85
247/ 1	-106.65	-0.24	9.87	0.0	0.0	0.0
247/ 1	-125.61	-0.24	-13.96	0.0	-34.47	4.12
248/ 1	657.61	0.04	14.99	0.0	-51.81	0.73
248/ 1	676.57	0.04	-8.85	0.0	0.0	0.0
249/ 1	1141.75	-0.70	7.97	0.0	0.0	0.0



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249/ 7	1163.78	-0.70	-13.69	0.0	-48.95	11.92
250/ 7	-326.48	0.03	11.93	0.0	-45.80	0.55
250/ 1	-348.51	0.03	-6.13	0.0	0.0	0.0
251/ 1	-103.22	0.24	9.88	0.0	0.0	0.0
251/ 1	-122.18	0.24	-13.96	0.0	-34.37	-4.09
252/ 1	654.90	-0.04	14.99	0.0	-51.88	-0.74
252/ 1	673.86	-0.04	-8.84	0.0	0.0	0.0
253/ 7	-289.43	0.25	9.65	-1.04	-34.48	1.63
253/ 1	-320.02	0.25	-6.89	-1.04	-15.36	-1.84
254/ 1	578.91	0.01	9.87	-0.57	-24.71	1.59
254/ 7	609.50	0.01	-6.68	-0.57	-2.58	1.49
255/ 7	-285.66	-0.26	9.48	1.05	-32.98	-1.76
255/ 1	-316.24	-0.26	-7.06	1.05	-16.21	1.91
256/ 1	574.46	-0.02	9.94	0.59	-24.99	-1.66
256/ 7	605.05	-0.02	-6.60	0.59	-1.81	-1.45
257/ 1	471.12	4.17	11.64	0.0	0.0	0.0
257/ 1	436.53	4.17	-11.41	0.0	1.24	-45.06
258/ 1	476.09	-5.59	-0.51	-4.10	23.23	-52.06
258/ 2	443.43	-5.59	-23.57	-4.10	-102.05	6.11
260/ 2	2572.82	7.45	-4.33	-18.52	72.25	28.18
260/ 1	2605.49	7.45	-23.54	-18.52	-65.15	-45.34
261/ 1	2637.88	-5.23	15.88	0.0	-64.61	-53.83
261/ 1	2672.47	-5.23	-3.33	0.0	0.0	0.0
262/ 2	-34.21	-0.96	3.80	3.91	-9.83	-9.47
262/ 1	-25.39	-0.96	-2.42	3.91	-2.64	0.54
263/ 1	68.18	1.56	3.39	1.18	-7.90	2.31
263/ 2	59.36	1.56	-1.80	1.18	-0.05	-13.04
264/ 1	478.22	-4.20	11.62	0.0	0.0	0.0
264/ 1	443.63	-4.20	-11.44	0.0	0.94	45.48
265/ 1	484.28	5.63	-0.58	4.24	23.59	52.50
265/ 2	451.61	5.63	-23.64	4.24	-102.44	-6.11
266/ 2	2566.90	-7.44	-4.40	18.60	72.61	-28.19
266/ 1	2599.57	-7.44	-23.61	18.60	-65.50	45.18
267/ 1	2631.93	5.22	15.85	0.0	-64.32	53.72
267/ 1	2666.52	5.22	-3.36	0.0	0.0	0.0
268/ 2	-35.82	0.94	3.80	-3.90	-9.84	9.36
268/ 1	-27.01	0.94	-2.42	-3.90	-2.66	-0.46
269/ 1	68.69	-1.56	3.39	-1.19	-7.88	-2.32
269/ 2	59.87	-1.56	-1.80	-1.19	-0.07	13.03
270/ 1	1277.85	3.64	15.33	-7.25	-41.64	41.88
270/ 3	1227.89	3.64	-14.26	-7.25	-33.62	-13.12
271/ 3	929.40	-3.87	9.00	5.40	-7.21	-11.27
271/ 1	979.36	-3.87	-14.83	5.40	-49.21	44.51
272/ 1	789.46	3.09	9.70	-5.30	-26.25	40.73
272/ 3	739.50	3.09	-7.98	-5.30	-14.40	-1.90
273/ 3	739.33	-3.09	7.97	5.28	-14.34	-1.86
273/ 1	789.29	-3.09	-9.71	5.28	-26.28	40.71
274/ 1	981.48	3.87	14.83	-5.41	-49.23	44.46
274/ 3	931.52	3.87	-8.99	-5.41	-7.19	-11.28
275/ 3	1229.36	-3.63	14.26	7.23	-33.60	-13.04
275/ 9	1279.32	-3.63	-15.33	7.23	-41.66	41.79
276/ 3	2961.27	0.98	59.05	0.0	0.0	0.0



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276/ 5	2873.98	0.98	23.20	0.0	248.96	-5.94
277/ 5	2849.25	-0.15	-63.57	-6.49	254.55	-5.19
277/ 1	2632.60	-0.15	-152.41	-6.49	-1367.79	-2.87
278/ 9	2633.19	0.16	152.24	6.50	-1366.31	-2.87
278/ 5	2849.84	0.16	63.40	6.50	253.54	-5.20
279/ 5	2874.49	-0.98	-23.03	0.0	247.96	-5.96
279/ 3	2961.78	-0.98	-58.88	0.0	0.0	0.0
280/ 5	-88.62	1.14	3.82	-0.81	-5.58	6.48
280/ 3	-82.81	1.14	-4.17	-0.81	-7.29	-4.34
281/ 3	-82.47	-1.14	4.17	0.81	-7.29	-4.35
281/ 5	-88.28	-1.14	-3.82	0.81	-5.58	6.49
283/ 1	-1860.49	-8.90	17.51	0.0	-24.75	-125.69
283/ 1	-1816.29	-8.90	-14.00	0.0	0.0	0.0
284/ 1	-562.58	-1.58	30.32	6.51	-64.77	-19.67
284/ 1	-539.52	-1.58	8.03	6.51	95.28	-6.46
285/ 1	-538.49	1.67	-8.04	-6.67	95.34	-5.99
285/ 1	-561.55	1.67	-30.33	-6.67	-64.78	-19.90
286/ 1	-1816.74	9.03	14.01	0.0	0.0	0.0
286/ 1	-1860.94	9.03	-17.50	0.0	-24.65	-127.61
287/ 1	161.28	3.42	4.62	-2.59	-8.14	15.64
287/ 1	161.28	3.42	-3.89	-2.59	-5.17	-12.41
288/ 1	162.54	-3.44	3.90	2.61	-5.19	-12.51
288/ 1	162.54	-3.44	-4.61	2.61	-8.12	15.72
289/ 1	654.96	5.77	6.92	-4.18	6.04	45.67
289/ 1	639.92	5.77	-13.63	-4.18	-28.05	-12.96
290/ 1	-1408.14	-10.92	-1.88	6.99	11.31	-31.55
290/ 1	-1393.10	-10.92	-1.88	6.99	0.05	33.97
291/ 1	-1393.99	-10.90	-1.88	-6.98	-0.06	-33.91
291/ 1	-1409.03	-10.90	-1.88	-6.98	-11.35	31.51
292/ 1	639.59	-5.81	13.64	4.28	-28.08	-13.11
292/ 9	654.63	-5.81	-6.91	4.28	6.11	45.90
293/ 1	-934.29	-2.24	8.04	19.16	4.16	-53.76
293/ 1	-904.31	-2.24	-18.86	19.16	-52.56	-30.24
294/ 1	-445.44	-8.28	19.27	0.0	-55.15	-78.54
294/ 1	-420.84	-8.28	-7.64	0.0	0.0	0.0
295/ 1	-420.34	8.55	7.64	0.0	0.0	0.0
295/ 1	-444.93	8.55	-19.26	0.0	-55.12	-81.10
296/ 1	-905.40	2.20	18.85	-19.69	-52.52	-30.13
296/ 1	-935.38	2.20	-8.06	-19.69	4.01	-53.17
297/ 1	-61.84	0.66	5.32	-0.44	-11.07	-1.86
297/ 1	-61.84	0.66	-1.94	-0.44	0.75	-6.48
298/ 1	-61.38	-0.69	1.94	0.37	0.76	-6.70
298/ 1	-61.38	-0.69	-5.32	0.37	-11.07	-1.86
299/ 1	502.01	2.43	7.58	0.0	0.0	0.0
299/ 1	485.97	2.43	-9.97	0.0	-11.34	-23.09
300/ 1	-664.26	1.25	-9.13	0.0	58.43	7.99
300/ 1	-648.21	1.25	-9.13	0.0	0.0	0.0
301/ 1	-649.94	1.25	-9.67	0.0	0.0	0.0
301/ 1	-665.99	1.25	-9.67	0.0	-61.88	-7.98
302/ 1	486.80	-2.63	9.97	0.0	-11.33	-24.90
302/ 1	502.85	-2.63	-7.58	0.0	0.0	0.0
303/ 2	-1364.37	-1.64	16.50	20.28	-19.51	-46.30



BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

App'd by:
5.1.2e

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18/08/22

Ref.

Calculations

Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
303/ 1	-1338.24	-1.64	-21.93	20.28	-52.31	-26.47
304/ 1	-1345.69	0.37	21.94	-19.22	-52.17	-34.79
304/ 2	-1371.82	0.37	-16.49	-19.22	-19.24	-39.29
305/ 2	276.53	3.78	-2.31	5.43	16.55	20.81
305/ 1	283.59	3.78	-6.46	5.43	-18.03	-9.02
306/ 1	636.32	0.52	1.73	-3.27	0.89	1.66
306/ 2	629.27	0.52	-2.42	-3.27	-1.84	-2.45
307/ 2	626.07	-0.17	2.38	2.84	-1.61	-0.88
307/ 1	633.13	-0.17	-1.77	2.84	0.78	0.45
308/ 1	294.11	0.27	6.50	-2.42	-18.16	0.68
308/ 2	287.06	0.27	2.35	-2.42	16.77	-1.47
309/ 1	74.24	-1.80	9.66	0.00	-13.07	-9.17
309/ 2	64.93	-1.80	-0.86	0.00	2.19	-2.92
310/ 2	107.01	-1.61	3.73	0.04	1.42	-3.20
310/ 1	97.70	-1.61	-6.79	0.04	-3.89	2.38
311/ 2	94.22	-1.73	10.58	0.03	-4.36	2.12
311/ 1	84.91	-1.73	0.05	0.03	14.09	8.12
312/ 2	88.72	-2.41	-3.27	-0.07	14.13	-10.90
312/ 1	79.41	-2.41	-13.79	-0.07	-15.48	-2.52
313/ 2	17.14	-2.21	8.45	0.08	-11.15	-3.06
313/ 1	7.84	-2.21	-2.07	0.08	-0.08	4.62
314/ 2	-74.17	-2.52	3.11	0.00	-0.07	3.87
314/ 1	-82.26	-2.52	-7.82	0.00	-7.98	12.35
315/ 2	132.37	-0.91	7.31	0.19	-7.92	-5.41
315/ 1	134.47	-0.91	7.31	0.19	6.71	-3.58
316/ 2	207.79	-0.73	0.98	0.0	-6.18	-4.63
316/ 1	214.39	-0.73	0.98	0.0	0.0	0.0
319/ 2	-196.12	-0.04	6.15	0.01	-1.89	-0.30
319/ 1	-198.53	-0.04	3.42	0.01	14.72	-0.14
320/ 2	-188.22	0.07	-6.28	-0.04	14.80	-0.22
320/ 1	-190.63	0.07	-9.00	-0.04	-11.72	-0.45
321/ 2	-173.61	-0.18	5.89	0.03	-9.67	-0.52
321/ 1	-176.02	-0.18	3.17	0.03	6.05	0.09
322/ 2	-101.32	-0.34	-3.98	-0.03	7.27	0.38
322/ 1	-103.73	-0.34	-6.81	-0.03	-11.87	1.57
323/ 2	31.87	0.18	-0.58	-0.00	0.88	0.21
323/ 1	31.36	0.18	-0.58	-0.00	-0.45	-0.21
324/ 2	-27.90	-0.01	0.04	0.00	0.32	0.18
324/ 1	-27.90	-0.01	-0.55	0.00	-0.34	0.20
326/ 2	11.89	-0.00	-0.45	0.00	0.59	-0.18
326/ 1	11.37	-0.00	-0.45	0.00	-0.46	-0.17
327/ 2	14.57	0.11	0.67	-0.00	0.01	0.20
327/ 1	14.57	0.11	0.08	-0.00	0.99	-0.09
328/ 2	0.52	0.00	-0.42	-0.00	0.91	0.01
328/ 1	0.07	0.00	-0.42	-0.00	0.07	0.00
329/ 3	0.42	0.00	0.07	-0.00	0.07	-0.00
329/ 2	0.42	0.00	-0.51	-0.00	-0.51	-0.01
330/ 3	-0.51	0.00	-0.42	-0.01	-0.51	0.00
330/ 2	-23.53	0.25	2.46	-0.00	2.97	-0.46
331/ 2	58.92	0.04	1.07	0.00	-1.36	0.30
331/ 1	58.92	0.04	0.48	0.00	0.66	0.19
332/ 2	-45.04	0.20	0.47	0.00	-0.57	-0.23

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures				Sheet No./rev.:	
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
332/ 2	-45.55	0.20	0.47	0.00	0.52	-0.70
333/ 2	68.21	0.51	-0.26	-0.00	0.51	0.40
333/ 2	68.21	0.51	-0.87	-0.00	-1.02	-0.99
334/ 1	-34.29	-1.24	12.21	-0.02	-23.73	-5.59
334/ 2	-43.60	-1.24	1.68	-0.02	0.37	-1.30
335/ 2	14.14	-1.32	5.29	0.04	-1.03	-1.46
335/ 2	4.83	-1.32	-5.24	0.04	-0.94	3.12
336/ 2	42.30	-1.62	4.56	0.02	-1.18	2.69
336/ 2	32.99	-1.62	-5.97	0.02	-3.63	8.31
337/ 2	1.57	-1.53	8.69	-0.09	-3.31	-7.79
337/ 2	-7.74	-1.53	-1.84	-0.09	8.58	-2.47
338/ 2	-14.85	-1.46	-4.28	0.00	12.37	-2.55
338/ 2	-22.26	-1.46	-12.66	0.00	-17.03	2.52
339/ 2	-55.06	-1.78	8.79	-0.05	-15.11	2.73
339/ 2	-63.16	-1.78	-2.14	-0.05	-3.93	8.69
340/ 2	-42.81	-1.53	10.98	0.19	-3.96	-5.47
340/ 2	-40.71	-1.53	10.98	0.19	18.00	-2.42
341/ 2	16.10	-1.70	8.06	-0.03	-29.41	-3.55
341/ 2	22.70	-1.70	8.06	-0.03	21.36	7.16
344/ 2	-18.90	0.32	1.20	0.05	1.50	1.45
344/ 2	-21.31	0.32	-1.52	0.05	0.93	0.34
345/ 2	-73.15	0.26	0.12	0.01	0.63	0.76
345/ 2	-75.56	0.26	-2.60	0.01	-3.68	-0.15
346/ 2	-93.52	0.31	10.82	-0.06	-5.47	-0.63
346/ 2	-95.93	0.31	8.09	-0.06	27.35	-1.69
348/ 2	-66.39	-0.49	-8.47	0.01	34.78	-1.68
348/ 2	-68.80	-0.49	-11.20	0.01	0.63	0.02
349/ 2	-68.58	-0.49	-12.48	0.01	0.63	0.02
349/ 2	-70.99	-0.49	-15.31	0.01	-48.65	1.75
350/ 2	41.50	-0.16	-0.91	0.00	1.07	-0.51
350/ 2	40.98	-0.16	-0.91	0.00	-1.01	-0.15
351/ 2	-39.95	-0.07	0.02	-0.00	0.39	0.09
351/ 2	-39.95	-0.07	-0.56	-0.00	-0.31	0.28
352/ 2	32.55	-0.02	0.03	0.00	-0.00	-0.30
352/ 2	32.04	-0.02	0.03	0.00	0.07	-0.26
353/ 2	-21.61	0.28	-0.12	-0.00	0.31	0.33
353/ 2	-21.61	0.28	-0.71	-0.00	-0.76	-0.40
354/ 2	1.14	0.24	-0.74	0.00	1.03	0.27
354/ 2	0.63	0.24	-0.74	0.00	-0.67	-0.27
355/ 2	29.40	-0.72	1.72	-0.00	-1.03	-1.81
355/ 2	29.40	-0.72	1.14	-0.00	2.69	0.06
356/ 2	-6.02	0.07	3.71	0.00	-4.73	0.04
356/ 2	-6.54	0.07	3.71	0.00	3.79	-0.12
357/ 2	41.19	0.31	1.48	-0.00	-1.92	-0.27
357/ 2	41.19	0.31	0.87	-0.00	1.24	-1.12
358/ 1	74.87	0.21	9.95	-0.01	-14.98	0.83
358/ 2	65.56	0.21	-0.58	-0.01	1.29	0.10
359/ 2	107.98	0.21	5.10	-0.01	0.26	0.18
359/ 2	98.67	0.21	-5.42	-0.01	-0.29	-0.54
360/ 2	110.05	0.24	5.45	-0.01	-0.31	-0.45
360/ 2	100.74	0.24	-5.07	-0.01	0.34	-1.30
361/ 2	70.25	-0.62	4.66	0.03	0.70	-1.92



BROWN & MASON
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Crossways Business Park, Dartford,
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Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

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18/08/22

Ref.

Calculations

Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
361/ 2	60.94	-0.62	-5.87	0.03	-1.41	0.22
362/ 2	-0.03	-0.63	4.27	0.03	-0.28	-0.07
362/ 2	-9.34	-0.63	-6.25	0.03	-3.72	2.12
363/ 2	-91.21	-0.73	5.60	-0.01	-3.61	1.88
363/ 2	-99.31	-0.73	-5.33	-0.01	-3.16	4.32
364/ 2	73.01	-0.21	-5.95	0.06	-3.15	-0.70
364/ 2	75.10	-0.21	-5.95	0.06	-15.05	-0.29
365/ 2	141.20	-0.10	6.42	0.0	-40.44	-0.65
365/ 2	147.79	-0.10	6.42	0.0	0.0	0.0
367/ 2	-151.56	0.01	-0.49	-0.01	7.03	-0.05
367/ 2	-153.97	0.01	-3.22	-0.01	0.58	-0.08
368/ 2	-185.41	0.01	2.12	-0.00	0.44	-0.15
368/ 2	-187.82	0.01	-0.60	-0.00	3.07	-0.17
369/ 2	-188.23	-0.00	0.63	0.01	3.13	-0.14
369/ 2	-190.64	-0.00	-2.09	0.01	0.59	-0.13
370/ 2	-148.99	-0.05	2.67	0.02	0.84	0.03
370/ 2	-151.40	-0.05	-0.05	0.02	5.39	0.20
371/ 2	-85.33	-0.06	-7.23	-0.01	7.58	0.32
371/ 2	-87.74	-0.06	-10.05	-0.01	-23.06	0.54
372/ 2	33.01	-0.01	-0.87	0.00	1.25	0.04
372/ 2	32.50	-0.01	-0.87	0.00	-0.74	0.05
373/ 2	-27.15	-0.00	0.14	-0.00	0.29	-0.05
373/ 2	-27.15	-0.00	-0.45	-0.00	-0.12	-0.05
374/ 2	16.39	-0.00	0.06	-0.00	0.02	0.05
374/ 2	15.87	-0.00	0.06	-0.00	0.15	0.05
375/ 2	-1.38	-0.04	0.19	0.00	0.18	-0.07
375/ 2	-1.38	-0.04	-0.40	0.00	-0.10	0.04
376/ 2	-1.05	-0.03	0.26	-0.00	-0.15	-0.01
376/ 2	-1.57	-0.03	0.26	-0.00	0.44	0.05
377/ 2	27.61	-0.00	0.22	0.00	0.09	0.12
377/ 2	27.61	-0.00	-0.36	0.00	-0.09	0.13
378/ 2	-31.53	0.04	0.42	-0.00	-0.34	-0.10
378/ 2	-32.05	0.04	0.42	-0.00	0.63	-0.20
379/ 2	51.96	0.06	0.76	-0.00	-0.49	0.22
379/ 2	51.96	0.06	0.17	-0.00	0.72	0.07
380/ 2	-39.35	0.07	1.13	0.00	-1.47	-0.10
380/ 2	-39.86	0.07	1.13	0.00	1.14	-0.25
381/ 2	72.64	0.16	-0.94	-0.00	1.03	0.11
381/ 2	72.64	0.16	-1.55	-0.00	-2.33	-0.34
382/ 1	31.40	1.24	11.06	0.02	-19.07	5.94
382/ 2	22.09	1.24	0.54	0.02	1.07	1.62
383/ 2	74.06	1.28	5.05	-0.04	-0.15	1.78
383/ 2	64.75	1.28	-5.47	-0.04	-0.88	-2.66
384/ 2	87.86	1.47	5.54	-0.01	-1.04	-2.25
384/ 2	78.55	1.47	-4.98	-0.01	-0.07	-7.37
385/ 2	58.82	3.73	4.79	-0.02	0.09	15.00
385/ 2	49.51	3.73	-5.73	-0.02	-1.54	2.06
386/ 2	4.01	3.73	4.63	-0.14	-0.70	3.12
386/ 2	-5.30	3.73	-5.90	-0.14	-2.91	-9.81
387/ 2	-74.99	4.27	5.03	0.04	-2.58	-8.63
387/ 3	-83.09	4.27	-5.89	0.04	-4.03	-22.99
388/ 3	-29.27	0.95	-2.28	-0.35	-4.07	3.93

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
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	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
388/ 2	-27.17	0.95	-2.28	-0.35	-8.63	2.03
389/ 2	31.58	0.64	4.27	0.0	-26.92	4.04
389/ 2	38.18	0.64	4.27	0.0	0.0	0.0
391/ 2	-92.93	-0.27	0.10	-0.05	4.74	-1.28
391/ 2	-95.34	-0.27	-2.62	-0.05	0.37	-0.35
392/ 2	-138.03	-0.21	2.09	-0.03	-0.01	-0.80
392/ 2	-140.44	-0.21	-0.64	-0.03	2.51	-0.08
393/ 2	-152.23	-0.46	0.86	0.01	2.38	0.02
393/ 2	-154.64	-0.46	-1.86	0.01	0.65	1.62
394/ 2	-127.83	0.41	2.30	-0.07	0.77	0.95
394/ 2	-130.24	0.41	-0.42	-0.07	4.05	-0.47
395/ 2	-77.35	0.59	-4.89	0.07	5.70	-0.92
395/ 2	-79.76	0.59	-7.71	0.07	-16.65	-3.02
396/ 2	38.39	0.13	-0.90	-0.00	1.19	0.45
396/ 2	37.88	0.13	-0.90	-0.00	-0.87	0.15
400/ 2	-35.04	0.09	0.06	0.00	0.35	-0.08
400/ 2	-35.04	0.09	-0.52	0.00	-0.25	-0.32
401/ 2	24.24	0.03	-0.05	-0.00	0.13	0.32
401/ 2	23.72	0.03	-0.05	-0.00	0.01	0.24
402/ 2	-9.96	-0.16	0.17	0.00	0.17	-0.33
402/ 2	-9.96	-0.16	-0.42	0.00	-0.16	0.09
403/ 2	6.27	0.09	0.13	-0.00	-0.03	-0.04
403/ 2	5.75	0.09	0.13	-0.00	0.27	-0.25
404/ 2	17.00	0.70	0.21	-0.00	0.10	1.25
404/ 2	17.00	0.70	-0.38	-0.00	-0.12	-0.56
405/ 2	-21.26	-0.17	0.32	0.00	-0.25	0.39
405/ 2	-21.78	-0.17	0.32	0.00	0.49	0.79
406/ 2	40.63	-0.18	0.62	0.00	-0.35	-0.71
406/ 2	40.63	-0.18	0.03	0.00	0.49	-0.26
407/ 2	-32.70	-0.36	0.93	-0.00	-1.16	0.39
407/ 2	-33.21	-0.36	0.93	-0.00	0.98	1.22
408/ 2	62.26	-0.90	-0.55	0.01	0.65	-0.53
408/ 2	62.26	-0.90	-1.15	0.01	-1.64	1.91
409/ 1	86.90	2.10	9.22	-0.01	-12.32	10.33
409/ 2	77.59	2.10	-1.30	-0.01	1.42	3.05
410/ 2	114.11	1.87	5.07	-0.05	0.53	3.40
410/ 2	104.80	1.87	-5.45	-0.05	-0.14	-3.09
411/ 2	111.45	2.06	5.27	0.02	-0.08	-2.70
411/ 2	102.14	2.06	-5.25	0.02	-0.05	-9.85
412/ 2	85.03	1.56	4.87	0.04	0.35	8.07
412/ 2	75.72	1.56	-5.65	0.04	-1.00	2.66
413/ 2	21.68	1.44	4.45	-0.04	-0.06	2.82
413/ 2	12.37	1.44	-6.07	-0.04	-2.87	-2.20
414/ 2	-69.68	1.64	4.07	-0.01	-2.25	-1.74
414/ 2	-77.78	1.64	-6.86	-0.01	-6.94	-7.26
415/ 2	129.33	0.63	5.69	-0.11	-6.91	4.26
415/ 2	131.43	0.63	5.69	-0.11	4.48	3.01
416/ 2	204.23	0.58	1.28	0.0	-8.09	3.65
416/ 2	210.83	0.58	1.28	0.0	0.0	0.0
418/ 2	-170.34	0.18	-0.02	-0.02	5.94	0.83
418/ 2	-172.75	0.18	-2.75	-0.02	1.13	0.21
419/ 2	-198.49	0.18	1.86	-0.02	1.01	-0.12



BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

App'd by:
5.1.2e

Date:
18/08/22

Ref.

Calculations

Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
419/ 2	-200.90	0.18	-0.87	-0.02	2.73	-0.73
420/ 2	-196.30	-0.33	0.91	0.05	2.78	-0.60
420/ 2	-198.71	-0.33	-1.82	0.05	1.20	0.56
421/ 2	-162.37	0.14	1.87	-0.01	1.54	0.64
421/ 2	-164.78	0.14	-0.85	-0.01	3.30	0.14
422/ 2	-101.53	0.27	-3.19	0.02	4.81	0.01
422/ 2	-103.94	0.27	-6.02	0.02	-11.51	-0.96
423/ 2	29.61	-0.22	-0.70	0.00	1.03	-0.24
423/ 2	29.10	-0.22	-0.70	0.00	-0.59	0.27
424/ 2	-22.43	0.00	0.12	-0.00	0.31	-0.24
424/ 2	-22.43	0.00	-0.46	-0.00	-0.13	-0.25
425/ 2	13.15	0.01	0.10	-0.00	-0.01	0.22
425/ 2	12.63	0.01	0.10	-0.00	0.22	0.20
426/ 2	2.03	-0.18	0.20	0.00	0.16	-0.34
426/ 2	2.03	-0.18	-0.39	0.00	-0.09	0.14
427/ 2	-4.77	0.33	0.24	-0.00	-0.14	-0.04
427/ 2	-5.29	0.33	0.24	-0.00	0.42	-0.79
428/ 2	24.34	0.37	0.27	-0.00	0.04	0.97
428/ 2	24.34	0.37	-0.32	-0.00	-0.02	0.02
429/ 2	-27.15	-0.11	0.43	0.00	-0.36	-0.09
429/ 2	-27.67	-0.11	0.43	0.00	0.63	0.16
430/ 2	46.74	0.00	0.58	-0.00	-0.31	-0.07
430/ 2	46.74	0.00	-0.01	-0.00	0.43	-0.08
431/ 2	-41.56	-0.12	0.89	-0.00	-1.07	0.11
431/ 2	-42.08	-0.12	0.89	-0.00	0.99	0.39
432/ 2	70.81	-0.32	-0.22	0.00	0.37	-0.26
432/ 2	70.81	-0.32	-0.83	0.00	-1.05	0.61
433/ 2	51.94	3.77	2.50	-0.03	2.58	10.14
433/ 2	51.94	3.77	-3.79	-0.03	-1.29	-12.46
434/ 2	116.82	-0.77	3.73	0.01	-2.02	-5.33
434/ 2	116.82	-0.77	-4.65	0.01	-5.69	0.83
435/ 2	116.29	4.91	4.97	0.00	-3.81	4.37
435/ 3	116.29	-60.09	-3.41	0.00	2.42	30.11
436/ 3	53.33	0.89	4.36	0.01	-6.88	11.30
436/ 2	53.33	0.89	-1.92	0.01	0.46	5.97
437/ 2	0.69	5.06	-0.03	-0.04	12.53	14.31
437/ 2	0.69	5.06	-6.32	-0.04	-6.53	-16.02
438/ 2	1.56	0.47	2.42	0.01	3.78	-2.07
438/ 2	1.56	0.47	-5.95	0.01	-10.34	-5.85
439/ 2	2.39	-0.95	5.18	0.00	-9.85	-5.53
439/ 2	2.39	-0.95	-3.20	0.00	-1.95	2.03
440/ 2	-0.46	-5.06	8.09	0.01	-17.04	-15.97
440/ 2	-0.46	-5.06	1.81	0.01	12.65	14.42
441/ 2	-91.85	-0.00	0.33	0.0	-0.64	-0.04
441/ 2	-91.12	-0.00	-0.20	0.0	0.0	0.0
442/ 2	111.53	0.01	0.26	-0.00	-0.43	0.06
442/ 2	110.80	0.01	-0.27	-0.00	-0.47	-0.02
443/ 3	112.77	0.00	0.27	-0.00	-0.49	0.04
443/ 2	113.50	0.00	-0.26	-0.00	-0.42	0.03
444/ 2	-92.38	0.00	0.27	-0.00	-0.49	0.00
444/ 2	-93.11	0.00	-0.25	-0.00	-0.41	-0.02
445/ 2	513.05	0.07	1.26	-0.00	-2.66	0.14

 Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152		Project: Gelderland Central Power Station				Job Ref.: C2002	
		Part of Structure: Boiler House and Turbine Pedestal support structures				Sheet No./rev.:	
		Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output	

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
445/ 2	513.05	0.07	-0.93	-0.00	-1.05	-0.52
447/ 2	192.95	-0.17	1.14	-0.00	-0.80	-0.84
447/ 2	192.95	-0.17	-0.81	-0.00	0.66	0.67
448/ 2	-192.95	-0.02	1.05	0.00	-0.66	-0.23
448/ 2	-192.95	-0.02	-0.90	0.00	-0.03	-0.06
449/ 2	-193.91	0.02	0.91	-0.00	0.03	-0.05
449/ 1	-193.91	0.02	-1.05	-0.00	-0.57	-0.23
450/ 1	193.91	0.17	0.83	0.00	0.57	0.67
450/ 2	193.91	0.17	-1.13	0.00	-0.73	-0.84
451/ 1	511.31	-0.07	0.99	0.00	-1.33	-0.51
451/ 2	511.31	-0.07	-1.20	0.00	-2.38	0.13
452/ 2	308.95	0.43	1.38	-0.00	-0.92	1.26
452/ 2	308.95	0.43	0.48	-0.00	2.78	-0.48
453/ 2	487.01	0.36	-1.38	0.00	3.39	0.42
453/ 1	486.93	-0.36	1.36	-0.00	3.30	0.42
454/ 1	307.98	-0.43	-0.52	0.00	2.77	-0.48
454/ 1	307.98	-0.43	-1.41	0.00	-1.09	1.25
455/ 1	-156.17	-0.02	2.16	-0.00	-6.95	-0.15
455/ 1	-156.17	-0.02	-0.72	-0.00	2.33	0.13
456/ 1	138.06	-0.03	0.29	-0.00	-2.04	-0.18
456/ 1	138.06	-0.03	-0.98	-0.00	-3.98	-0.03
457/ 1	137.84	0.03	0.98	0.00	-3.98	-0.02
457/ 1	137.84	0.03	-0.29	0.00	-2.04	-0.18
458/ 1	-155.92	0.02	0.72	0.00	2.33	0.13
458/ 1	-155.92	0.02	-2.16	0.00	-6.95	-0.16
459/ 1	140.19	-0.08	2.32	0.00	-8.88	-0.46
459/ 1	140.19	-0.08	0.12	0.00	3.00	0.32
460/ 1	-159.17	0.01	1.06	-0.00	-3.40	0.00
460/ 1	-159.17	0.01	-1.43	-0.00	-5.45	-0.09
461/ 1	-158.92	-0.01	1.43	0.00	-5.45	-0.11
461/ 1	-158.92	-0.01	-1.06	0.00	-3.40	0.01
462/ 1	139.97	0.08	-0.12	-0.00	3.00	0.32
462/ 1	139.97	0.08	-2.32	-0.00	-8.88	-0.47
463/ 1	200.90	0.15	-0.94	-0.01	4.30	0.31
463/ 1	200.90	0.15	-1.84	-0.01	-1.28	-0.28
464/ 1	-18.71	0.08	-2.85	0.00	1.98	0.02
464/ 1	-18.67	-0.09	2.85	-0.00	1.99	0.03
465/ 1	200.59	-0.15	1.84	0.01	-1.28	-0.28
465/ 1	200.59	-0.15	0.94	0.01	4.30	0.31
466/ 1	1.63	-0.53	6.13	-0.07	-0.04	-2.43
466/ 1	1.63	-0.53	-1.20	-0.07	17.24	1.26
467/ 1	130.50	0.70	-3.62	0.04	17.75	1.77
467/ 1	130.50	0.70	-10.95	0.04	-33.28	-3.10
468/ 1	130.50	-0.70	10.95	-0.04	-33.28	-3.11
468/ 1	130.50	-0.70	3.62	-0.04	17.75	1.77
469/ 1	1.63	0.53	1.20	0.07	17.24	1.26
469/ 1	1.63	0.53	-6.13	0.07	-0.04	-2.44
470/ 1	-64.46	0.39	5.93	0.01	1.78	2.55
470/ 1	-64.46	0.39	-1.41	0.01	17.59	-0.17
471/ 1	-64.78	0.36	-2.61	-0.01	17.51	0.23
471/ 1	-64.78	0.36	-9.94	-0.01	-26.40	-2.26
472/ 1	-64.78	-0.36	9.94	0.01	-26.40	-2.26



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Part of Structure:
Boiler House and Turbine Pedestal support structures

Job Ref.:
C2002

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Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
472/ 1	-64.78	-0.36	2.61	0.01	17.51	0.23
473/ 1	-64.46	-0.39	1.41	-0.01	17.59	-0.17
473/ 1	-64.46	-0.39	-5.93	-0.01	1.78	2.55
474/ 1	98.51	0.12	1.77	0.00	-2.72	0.35
474/ 1	98.56	-0.07	-1.20	-0.00	0.31	0.21
475/ 1	-96.95	-0.10	1.22	0.00	-0.46	-0.29
475/ 1	-96.95	0.10	-1.77	0.00	-3.38	-0.29
476/ 1	-96.94	-0.10	1.77	-0.00	-3.38	-0.29
476/ 1	-96.95	0.10	-1.22	-0.00	-0.46	-0.29
477/ 1	98.56	0.07	1.20	0.00	0.31	0.21
477/ 1	98.51	-0.12	-1.77	-0.00	-2.72	0.35
478/ 1	-0.18	-0.07	0.58	0.00	0.00	-0.12
478/ 1	-0.18	-0.07	-0.61	0.00	-0.08	0.24
479/ 1	0.19	-0.04	0.59	-0.00	0.05	-0.16
479/ 1	0.19	-0.04	-0.61	-0.00	0.00	0.03
480/ 1	0.19	0.04	0.61	0.00	0.00	0.03
480/ 1	0.19	0.04	-0.59	0.00	0.05	-0.16
481/ 1	-0.18	0.07	0.61	-0.00	-0.08	0.24
481/ 1	-0.18	0.07	-0.58	-0.00	0.00	-0.12
482/ 1	93.81	1.37	27.79	0.05	-70.68	0.58
482/ 1	167.89	-0.58	-18.54	0.0	0.00	-0.00
483/ 1	147.42	0.00	49.86	-0.00	-152.34	0.00
483/ 1	-0.73	0.00	-27.98	0.0	-0.00	-0.00
484/ 1	93.69	-1.37	27.79	-0.05	-70.69	-0.57
484/ 1	167.77	0.58	-18.54	0.0	-0.00	0.00
485/ 1	-27.98	0.00	0.73	0.0	-0.00	-0.00
485/ 1	-38.98	0.00	0.73	0.0	7.65	-0.00
486/ 8	-1.68	0.05	4.55	0.01	-8.10	0.17
486/ 9	-1.68	0.05	-3.92	0.01	-4.54	-0.38
487/ 9	143.07	-0.35	-17.89	-0.02	38.79	-0.92
487/ 1	143.07	-0.35	-21.45	-0.02	-54.50	0.75
488/ 1	146.89	0.36	9.15	0.01	-27.06	1.48
488/ 9	146.89	0.36	3.62	0.01	20.09	-1.17
489/ 9	58.91	-0.02	4.50	-0.01	-5.34	-0.10
489/ 8	58.91	-0.02	-3.98	-0.01	-2.43	0.07
490/ 8	58.99	0.02	3.98	0.01	-2.43	0.07
490/ 9	58.99	0.02	-4.50	0.01	-5.35	-0.10
491/ 9	147.52	-0.36	-3.62	-0.01	20.09	-1.17
491/ 9	147.52	-0.36	-9.15	-0.01	-27.05	1.47
492/ 9	143.46	0.36	21.45	0.02	-54.50	0.76
492/ 9	143.46	0.36	17.90	0.02	38.81	-0.93
493/ 9	-1.39	-0.05	3.93	-0.01	-4.56	-0.38
493/ 8	-1.39	-0.05	-4.55	-0.01	-8.10	0.17
494/ 9	16.54	-0.01	4.61	-0.01	-8.73	-0.06
494/ 8	16.54	-0.01	-3.87	-0.01	-4.52	0.04
495/ 8	23.38	-0.42	5.77	0.03	-5.36	-0.82
495/ 7	23.38	-0.42	1.83	0.03	14.58	1.38
496/ 7	-35.62	-0.26	3.55	-0.01	-14.27	-1.11
496/ 8	-35.62	-0.26	-0.38	-0.01	-5.95	0.25
497/ 8	2.67	0.02	4.70	0.01	-7.34	0.15
497/ 9	2.67	0.02	-3.78	0.01	-2.15	-0.12
498/ 9	2.63	-0.02	3.78	-0.01	-2.15	-0.12



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C2002

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Boiler House and Turbine Pedestal support structures

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Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
498/ 8	2.63	-0.02	-4.70	-0.01	-7.34	0.15
499/ 8	-35.86	0.26	0.38	0.01	-6.00	0.24
499/ 8	-35.86	0.26	-3.55	0.01	-14.34	-1.11
500/ 8	23.63	0.42	-1.85	-0.03	14.64	1.37
500/ 8	23.63	0.42	-5.78	-0.03	-5.37	-0.81
501/ 8	16.28	0.01	3.87	0.01	-4.56	0.04
501/ 9	16.28	0.01	-4.61	0.01	-8.71	-0.06
502/ 8	-70.38	-0.03	3.64	0.00	2.32	-0.19
502/ 9	-70.38	-0.03	-4.84	0.00	-4.49	0.11
503/ 9	8.45	0.09	3.61	-0.00	3.50	0.53
503/ 8	8.45	0.09	-4.87	-0.00	-3.63	-0.46
504/ 8	8.71	-0.09	4.87	0.00	-3.64	-0.46
504/ 9	8.71	-0.09	-3.60	0.00	3.53	0.54
505/ 9	-71.00	0.03	4.85	-0.00	-4.51	0.11
505/ 8	-71.00	0.03	-3.63	-0.00	2.36	-0.19
506/ 3	-27.06	-0.07	3.70	-0.01	-3.17	-0.47
506/ 3	-27.06	-0.07	-3.79	-0.01	-3.65	0.21
507/ 3	19.17	-0.02	3.92	0.01	-4.17	-0.05
507/ 3	19.17	-0.02	-3.58	0.01	-2.48	0.18
508/ 3	-11.66	-0.03	3.58	-0.01	-2.88	-0.16
508/ 3	-11.66	-0.03	-3.91	-0.01	-4.55	0.11
509/ 3	-11.73	0.03	3.91	0.01	-4.56	0.11
509/ 3	-11.73	0.03	-3.58	0.01	-2.88	-0.16
510/ 3	19.37	0.02	3.58	-0.01	-2.49	0.18
510/ 3	19.37	0.02	-3.92	-0.01	-4.17	-0.06
511/ 3	-27.01	0.07	3.79	0.01	-3.65	0.21
511/ 3	-27.01	0.07	-3.70	0.01	-3.17	-0.47
512/ 3	4.78	0.07	13.84	0.01	-19.59	0.33
512/ 3	4.78	0.07	-3.78	0.01	20.65	-0.22
513/ 3	-25.93	-0.02	10.24	0.00	-12.56	-0.03
513/ 3	-25.93	-0.02	-7.38	0.00	-1.08	0.16
514/ 3	-22.32	-0.02	5.23	0.00	2.51	-0.04
514/ 3	-22.32	-0.02	-12.39	0.00	-26.16	0.16
515/ 3	-22.30	0.03	12.37	-0.00	-26.16	0.17
515/ 3	-22.30	0.03	-5.25	-0.00	2.34	-0.04
516/ 3	-25.97	0.03	7.44	-0.00	-1.39	0.16
516/ 3	-25.97	0.03	-10.18	-0.00	-12.34	-0.04
517/ 3	4.82	-0.07	3.77	-0.01	20.76	-0.22
517/ 3	4.82	-0.07	-13.85	-0.01	-19.54	0.33
518/ 3	5.40	-0.56	6.94	0.01	4.67	-2.35
518/ 3	5.40	-0.56	-10.68	0.01	-10.28	2.10
519/ 3	-5.36	-0.35	10.83	-0.00	-11.11	-1.51
519/ 3	-5.36	-0.35	-6.79	-0.00	5.03	1.33
520/ 3	13.52	-0.14	3.17	0.00	7.87	-0.62
520/ 3	13.52	-0.14	-14.45	0.00	-37.25	0.46
521/ 3	13.54	0.14	14.44	-0.00	-37.27	0.47
521/ 3	13.54	0.14	-3.18	-0.00	7.79	-0.63
522/ 3	-5.49	0.36	6.81	0.00	4.94	1.33
522/ 3	-5.49	0.36	-10.81	0.00	-11.04	-1.52
523/ 3	5.32	0.56	10.67	-0.01	-10.20	2.10
523/ 3	5.32	0.56	-6.95	-0.01	4.68	-2.35
524/ 2	1858.45	-0.00	17.39	0.0	0.0	0.0



Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Part of Structure:
Boiler House and Turbine Pedestal support structures

Job Ref.:
C2002

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

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5.1.2e

Date:
18/08/22

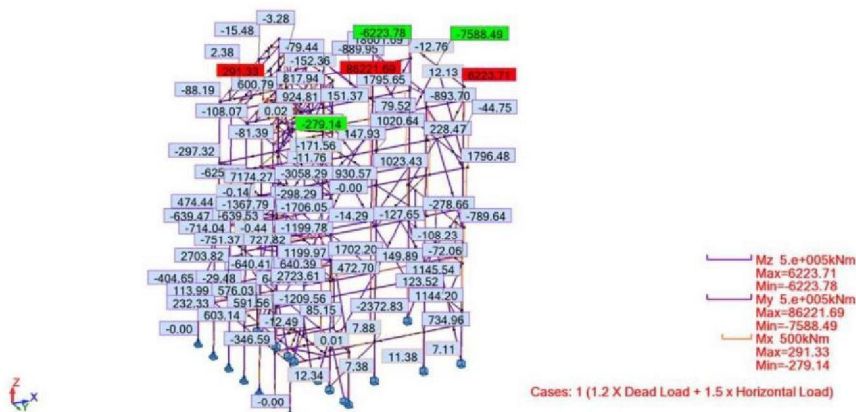
Ref.

Calculations

Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
524/ 3	1798.97	-0.00	-17.39	0.0	0.0	0.0
526/ 3	1798.52	0.0	17.39	0.0	0.0	0.0
526/ 2	1858.00	0.0	-17.39	0.0	0.0	0.0
527/ 1	-1068.02	0.01	16.22	0.0	0.0	0.0
527/ 2	-1104.14	0.01	-29.89	0.0	-104.19	-0.08
528/ 1	-1064.72	-0.01	16.25	0.0	0.0	0.0
528/ 2	-1100.84	-0.01	-29.87	0.0	-103.85	0.09
529/ 2	-164.24	-0.04	-0.60	0.01	5.85	-0.72
529/ 2	-166.65	-0.04	-3.32	0.01	-0.95	-0.57
530/ 1	101.86	-0.38	8.58	0.28	-75.11	-8.41
530/ 2	223.90	-0.53	-44.41	0.0	0.00	0.00
531/ 1	333.27	-4.56	91.05	-0.13	-254.29	-21.96
531/ 2	-56.98	1.62	-38.51	0.0	0.00	-0.00
532/ 1	242.22	-0.07	0.82	-0.02	-93.10	-0.40
532/ 2	353.82	0.02	-33.32	0.0	0.00	0.0
533/ 1	275.40	4.51	41.48	0.10	-166.05	21.83
533/ 2	-58.75	-1.60	-35.20	0.0	0.00	-0.00
534/ 1	91.58	0.44	3.30	-0.32	-69.06	8.10
534/ 2	218.45	0.48	-43.81	0.0	0.00	0.00

View - MX,MY,MZ, Cases: 1 (1.2 X Dead Load + 1.5 x Horizontal Load)





Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
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Project:
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Boiler House and Turbine Pedestal support structures

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Calculations

Output

stresses: values

- Case: 1 (1.2 X Dead Load + 1.5 x Horizontal Load)

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My) (MPa)	S min(Mz) (MPa)
1/ 1	18.84	18.84	0.0	0.00	0.0	0.00
1/ 4	37.84	-2.15	18.43	1.57	-18.43	-1.57
6/ 2	49.55	49.55	0.0	0.0	0.0	0.0
6/ 4	70.38	26.71	15.78	6.06	-15.78	-6.06
7/ 4	76.49	-0.67	26.23	12.35	-26.23	-12.35
7/ 7	99.52	-26.71	29.12	34.00	-29.12	-34.00
9/ 2	36.34	-14.11	0.00	25.22	-0.00	-25.22
9/ 1	23.03	-4.25	13.54	0.10	-13.54	-0.10
10/ 1	33.74	-26.96	23.94	6.41	-23.94	-6.41
10/ 1	21.53	-17.19	13.61	5.76	-13.61	-5.76
11/ 3	56.77	56.77	0.0	0.0	0.0	0.0
11/ 4	72.82	38.71	15.51	1.54	-15.51	-1.54
12/ 4	73.72	16.77	26.94	1.54	-26.94	-1.54
12/ 7	80.80	6.68	32.52	4.55	-32.52	-4.55
13/ 7	30.29	1.30	9.39	5.10	-9.39	-5.10
13/ 2	22.66	7.85	4.96	2.45	-4.96	-2.45
14/ 2	22.66	7.85	4.96	2.45	-4.96	-2.45
14/ 1	17.67	11.22	1.68	1.54	-1.68	-1.54
15/ 1	22.46	-17.63	18.27	1.77	-18.27	-1.77
15/ 1	14.61	-12.21	12.66	0.75	-12.66	-0.75
16/ 4	53.68	53.68	0.0	0.0	0.0	0.0
16/ 4	68.16	37.20	15.47	0.00	-15.47	-0.00
17/ 4	69.23	14.27	27.47	0.01	-27.47	-0.01
17/ 7	74.48	6.02	34.22	0.02	-34.22	-0.02
18/ 7	45.99	-20.36	33.14	0.03	-33.14	-0.03
18/ 1	15.63	8.92	3.35	0.01	-3.35	-0.01
19/ 1	15.20	8.00	3.59	0.01	-3.59	-0.01
19/ 1	39.34	-17.75	28.47	0.08	-28.47	-0.08
20/ 1	23.22	-19.02	21.04	0.08	-21.04	-0.08
20/ 1	5.81	-4.05	4.92	0.01	-4.92	-0.01
21/ 5	56.65	56.65	0.0	0.0	0.0	0.0
21/ 4	72.72	38.58	15.52	1.55	-15.52	-1.55
22/ 4	73.68	16.56	26.99	1.57	-26.99	-1.57
22/ 8	80.83	6.42	32.60	4.61	-32.60	-4.61
23/ 8	29.76	1.58	9.00	5.09	-9.00	-5.09
23/ 2	22.45	7.82	4.84	2.47	-4.84	-2.47
24/ 2	22.45	7.82	4.84	2.47	-4.84	-2.47
24/ 1	17.17	11.48	1.39	1.45	-1.39	-1.45
25/ 1	20.72	-16.08	16.86	1.53	-16.86	-1.53
25/ 1	10.35	-8.13	8.43	0.81	-8.43	-0.81
26/ 6	49.57	49.57	0.0	0.0	0.0	0.0
26/ 4	70.43	26.71	15.78	6.08	-15.78	-6.08
27/ 4	76.55	-0.68	26.27	12.35	-26.27	-12.35
27/ 8	99.64	-26.77	29.16	34.04	-29.16	-34.04
28/ 2	36.40	-14.11	0.00	25.25	-0.00	-25.25
28/ 1	30.92	-9.71	5.51	14.81	-5.51	-14.81
29/ 1	27.33	-6.87	2.29	14.81	-2.29	-14.81
29/ 1	23.10	-4.25	13.58	0.09	-13.58	-0.09
30/ 1	33.53	-26.58	23.49	6.56	-23.49	-6.56



BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

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Calculations

Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My) (MPa)	S min(Mz) (MPa)
30/ 1	20.67	-16.16	12.56	5.86	-12.56	-5.86
31/ 7	18.85	18.85	0.0	0.00	0.0	0.00
31/ 4	37.86	-2.16	18.45	1.56	-18.45	-1.56
32/ 4	46.79	-30.41	34.98	2.64	-34.98	-4.61
32/ 5	9.90	7.27	1.12	0.14	-1.12	-0.25
33/ 5	12.83	2.36	5.06	0.13	-5.06	-0.22
33/ 8	25.95	-10.03	13.30	5.97	-13.30	-3.41
34/ 3	34.41	-10.32	20.21	2.75	-20.21	-1.57
34/ 6	18.95	2.54	7.57	0.46	-7.57	-0.81
35/ 6	34.63	-16.57	25.06	0.69	-25.06	-0.39
35/ 9	56.78	-37.98	41.94	6.93	-41.94	-3.96
36/ 4	48.76	-28.42	34.97	4.60	-34.97	-2.63
36/ 6	10.00	7.40	1.11	0.25	-1.11	-0.14
37/ 6	12.82	2.56	4.96	0.22	-4.96	-0.13
37/ 8	23.48	-12.67	13.40	3.40	-13.40	-5.94
39/ 3	33.15	-11.42	20.15	1.56	-20.15	-2.72
39/ 6	19.25	2.91	7.53	0.81	-7.53	-0.46
40/ 6	34.22	-16.76	24.94	0.40	-24.94	-0.69
40/ 9	53.69	-40.83	41.83	3.95	-41.83	-6.91
42/ 1	42.57	1.77	13.87	6.53	-13.87	-6.53
42/ 3	30.47	11.87	2.88	6.42	-2.88	-6.42
44/ 1	47.43	9.20	15.24	3.88	-15.24	-3.88
44/ 3	32.75	24.15	0.15	4.15	-0.15	-4.15
45/ 3	33.30	33.30	0.0	0.0	0.0	0.0
45/ 1	55.99	8.33	6.53	17.30	-6.53	-17.30
46/ 1	57.54	9.39	7.86	16.21	-7.86	-16.21
46/ 1	33.18	32.83	0.04	0.13	-0.04	-0.13
47/ 1	32.98	32.98	0.0	0.0	0.0	0.0
47/ 1	37.23	37.23	0.00	-0.00	-0.00	0.00
48/ 1	37.23	37.23	0.0	0.0	0.0	0.0
48/ 1	22.33	12.87	0.19	4.54	-0.19	-4.54
49/ 1	22.47	12.67	0.18	4.72	-0.18	-4.72
49/ 1	36.27	-2.74	9.76	9.74	-9.76	-9.74
50/ 1	23.74	-0.47	10.20	1.90	-10.20	-1.90
50/ 2	28.86	-9.33	0.16	18.94	-0.16	-18.94
51/ 1	47.45	9.29	15.21	3.87	-15.21	-3.87
51/ 3	32.77	24.17	0.15	4.15	-0.15	-4.15
52/ 3	33.33	33.33	0.0	0.0	0.0	0.0
52/ 9	55.99	8.44	6.52	17.26	-6.52	-17.26
53/ 9	57.60	9.49	7.85	16.21	-7.85	-16.21
53/ 1	33.26	32.91	0.04	0.13	-0.04	-0.13
54/ 1	33.06	33.06	0.0	0.0	0.0	0.0
54/ 1	37.31	37.31	0.00	0.00	-0.00	-0.00
55/ 1	37.31	37.31	0.0	0.0	0.0	0.0
55/ 1	22.37	12.90	0.19	4.54	-0.19	-4.54
56/ 1	22.51	12.70	0.19	4.72	-0.19	-4.72
56/ 1	36.31	-2.70	9.79	9.71	-9.79	-9.71
57/ 1	23.89	-0.57	10.22	2.01	-10.22	-2.01
57/ 2	29.04	-9.43	0.10	19.13	-0.10	-19.13
58/ 8	42.53	1.81	13.83	6.53	-13.83	-6.53
58/ 3	30.47	11.87	2.87	6.43	-2.87	-6.43
60/ 1	55.91	17.99	18.12	0.84	-18.12	-0.84



BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

App'd by:
5.1.2e

Date:
18/08/22

Ref.

Calculations

Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My) (MPa)	S min(Mz) (MPa)
60/ 2	44.72	27.73	8.09	0.41	-8.09	-0.41
61/ 2	31.22	30.23	0.08	0.41	-0.08	-0.41
61/ 2	27.49	13.79	5.73	1.12	-5.73	-1.12
62/ 2	27.49	13.79	5.73	1.12	-5.73	-1.12
62/ 1	21.88	17.52	2.17	0.01	-2.17	-0.01
63/ 1	36.14	4.18	15.97	0.01	-15.97	-0.01
63/ 1	38.88	-0.18	17.31	2.22	-17.31	-2.22
64/ 1	39.48	3.42	15.82	2.21	-15.82	-2.21
64/ 1	25.93	15.58	2.83	2.34	-2.83	-2.34
65/ 1	34.12	5.42	12.01	2.34	-12.01	-2.34
65/ 2	45.36	-7.13	24.76	1.49	-24.76	-1.49
66/ 2	20.55	17.85	0.00	1.35	-0.00	-1.35
66/ 2	18.93	18.93	0.00	-0.00	-0.00	0.00
67/ 1	55.94	17.88	18.15	0.88	-18.15	-0.88
67/ 2	44.83	27.55	8.21	0.42	-8.21	-0.42
68/ 2	31.22	30.18	0.10	0.42	-0.10	-0.42
68/ 7	32.45	26.20	2.81	0.32	-2.81	-0.32
69/ 7	26.91	14.34	5.11	1.18	-5.11	-1.18
69/ 1	22.09	17.27	2.39	0.02	-2.39	-0.02
70/ 1	36.28	3.97	16.13	0.02	-16.13	-0.02
70/ 1	38.98	-0.35	17.42	2.25	-17.42	-2.25
71/ 1	39.60	3.21	15.96	2.24	-15.96	-2.24
71/ 1	25.83	15.59	2.77	2.35	-2.77	-2.35
72/ 1	34.10	5.35	12.02	2.35	-12.02	-2.35
72/ 2	45.42	-7.28	24.86	1.49	-24.86	-1.49
73/ 2	20.55	17.85	0.00	1.35	-0.00	-1.35
73/ 2	18.93	18.93	0.00	0.00	-0.00	-0.00
74/ 2	83.73	32.69	25.41	0.11	-25.41	-0.11
74/ 2	71.66	43.30	13.86	0.32	-13.86	-0.32
75/ 2	63.03	51.66	5.37	0.32	-5.37	-0.32
75/ 7	57.59	54.34	1.59	0.03	-1.59	-0.03
76/ 7	81.53	67.90	6.32	0.49	-6.32	-0.49
76/ 1	79.22	68.34	5.30	0.13	-5.30	-0.13
77/ 1	82.44	61.18	10.50	0.13	-10.50	-0.13
77/ 1	90.95	51.06	19.11	0.84	-19.11	-0.84
78/ 1	84.89	56.40	13.45	0.79	-13.45	-0.79
78/ 1	76.43	63.47	4.34	2.14	-4.34	-2.14
79/ 1	84.40	55.92	12.10	2.14	-12.10	-2.14
79/ 2	87.55	51.46	16.66	1.38	-16.66	-1.38
80/ 2	89.10	86.90	0.00	1.10	-0.00	-1.10
80/ 2	87.73	87.73	0.00	0.00	-0.00	-0.00
81/ 2	83.67	32.80	25.32	0.11	-25.32	-0.11
81/ 2	71.59	43.43	13.76	0.32	-13.76	-0.32
82/ 2	62.97	51.78	5.28	0.32	-5.28	-0.32
82/ 7	57.37	54.61	1.35	0.03	-1.35	-0.03
83/ 7	81.84	67.60	6.65	0.47	-6.65	-0.47
83/ 1	79.13	68.43	5.22	0.13	-5.22	-0.13
84/ 1	82.43	61.24	10.46	0.13	-10.46	-0.13
84/ 1	91.02	51.03	19.16	0.84	-19.16	-0.84
85/ 1	85.01	56.34	13.54	0.79	-13.54	-0.79
85/ 1	76.40	63.56	4.28	2.14	-4.28	-2.14
86/ 1	84.44	55.94	12.11	2.15	-12.11	-2.15

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002		
	Part of Structure: Boiler House and Turbine Pedestal support structures						Sheet No./rev.:
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22			
Ref.	Calculations					Output	

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My) (MPa)	S min(Mz) (MPa)
86/ 2	87.65	51.42	16.73	1.38	-16.73	-1.38
87/ 2	89.10	86.90	0.00	1.10	-0.00	-1.10
87/ 2	87.73	87.73	0.00	0.00	-0.00	-0.00
88/ 2	102.14	33.48	29.89	4.44	-29.89	-4.44
88/ 4	65.27	38.15	7.57	5.99	-7.57	-5.99
89/ 4	64.14	39.40	7.57	4.80	-7.57	-4.80
89/ 6	60.00	41.67	1.36	7.81	-1.36	-7.81
90/ 6	59.21	50.44	1.35	3.03	-1.35	-3.03
90/ 1	68.29	38.36	6.97	8.00	-6.97	-8.00
91/ 1	64.47	44.21	6.97	3.16	-6.97	-3.16
91/ 1	64.23	13.73	13.98	11.27	-13.98	-11.27
92/ 1	47.16	-7.45	13.98	13.32	-13.98	-13.32
92/ 2	80.66	-45.55	0.00	63.10	-0.00	-63.10
93/ 2	102.01	33.51	29.83	4.42	-29.83	-4.42
93/ 3	65.18	38.12	7.56	5.97	-7.56	-5.97
94/ 3	64.06	39.37	7.56	4.78	-7.56	-4.78
94/ 6	59.95	41.61	1.36	7.81	-1.36	-7.81
95/ 6	59.17	50.36	1.36	3.04	-1.36	-3.04
95/ 1	68.35	38.22	7.06	8.01	-7.06	-8.01
96/ 1	64.52	44.09	7.06	3.15	-7.06	-3.15
96/ 1	64.24	13.72	13.99	11.27	-13.99	-11.27
97/ 1	47.17	-7.46	14.00	13.32	-14.00	-13.32
97/ 2	80.65	-45.55	0.00	63.10	-0.00	-63.10
98/ 4	13.98	-18.86	14.80	1.62	-14.80	-1.62
98/ 3	-2.61	-2.61	0.00	0.00	-0.00	-0.00
99/ 4	17.08	-17.10	17.07	0.02	-17.07	-0.02
99/ 5	0.04	0.04	0.00	0.00	-0.00	-0.00
100/ 4	17.22	-17.33	17.24	0.03	-17.24	-0.03
100/ 5	-0.01	-0.01	0.00	0.00	-0.00	-0.00
101/ 4	17.36	-17.53	17.44	0.00	-17.44	-0.00
101/ 3	0.06	0.06	0.00	0.00	-0.00	-0.00
102/ 4	17.24	-17.36	17.27	0.03	-17.27	-0.03
102/ 5	-0.01	-0.01	0.00	0.00	-0.00	-0.00
103/ 4	17.10	-17.11	17.08	0.02	-17.08	-0.02
103/ 4	0.04	0.04	0.00	0.00	-0.00	-0.00
104/ 4	13.98	-18.87	14.81	1.62	-14.81	-1.62
104/ 3	-2.61	-2.61	0.00	0.00	-0.00	-0.00
105/ 4	14.01	-13.95	13.61	0.38	-13.61	-0.38
105/ 4	13.26	-13.20	13.07	0.15	-13.07	-0.15
106/ 4	8.06	-13.49	10.56	0.22	-10.56	-0.22
106/ 4	-0.53	-4.90	1.83	0.35	-1.83	-0.35
107/ 4	-2.14	-2.55	0.07	0.14	-0.07	-0.14
107/ 4	1.81	-6.51	3.92	0.24	-3.92	-0.24
108/ 4	1.84	-6.54	3.94	0.25	-3.94	-0.25
108/ 4	-2.11	-2.59	0.09	0.14	-0.09	-0.14
109/ 4	-0.62	-4.83	1.75	0.36	-1.75	-0.36
109/ 4	7.99	-13.44	10.48	0.23	-10.48	-0.23
110/ 4	13.24	-13.18	13.06	0.15	-13.06	-0.15
110/ 4	13.99	-13.92	13.58	0.38	-13.58	-0.38
111/ 3	-0.75	-20.55	9.13	0.77	-9.13	-0.77
111/ 5	-2.84	-18.46	7.39	0.42	-7.39	-0.42
112/ 5	-2.78	-18.40	7.39	0.42	-7.39	-0.42

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures				Sheet No./rev.:	
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My) (MPa)	S min(Mz) (MPa)
112/ 3	-0.82	-20.36	7.93	1.84	-7.93	-1.84
113/ 3	5.57	-23.73	14.12	0.53	-14.12	-0.53
113/ 5	8.26	-26.41	17.03	0.30	-17.03	-0.30
114/ 5	8.29	-26.38	17.03	0.30	-17.03	-0.30
114/ 3	11.40	-29.49	20.11	0.33	-20.11	-0.33
115/ 3	11.39	-29.48	20.12	0.32	-20.12	-0.32
115/ 5	8.31	-26.40	17.04	0.31	-17.04	-0.31
116/ 5	8.27	-26.43	17.04	0.31	-17.04	-0.31
116/ 3	5.57	-23.73	14.10	0.55	-14.10	-0.55
117/ 3	-0.90	-20.28	7.91	1.78	-7.91	-1.78
117/ 4	-2.76	-18.42	7.40	0.43	-7.40	-0.43
118/ 4	-2.82	-18.49	7.40	0.43	-7.40	-0.43
118/ 3	-0.75	-20.55	9.15	0.75	-9.15	-0.75
119/ 5	11.96	3.21	3.45	0.92	-3.45	-0.92
119/ 6	26.28	-11.11	15.33	3.37	-15.33	-3.37
120/ 6	11.88	3.28	3.37	0.93	-3.37	-0.93
120/ 6	26.23	-11.06	15.26	3.39	-15.26	-3.39
121/ 8	12.65	-10.22	11.21	0.22	-11.21	-0.22
121/ 9	37.84	-35.41	36.28	0.35	-36.28	-0.35
122/ 7	9.28	-6.39	7.54	0.29	-7.54	-0.29
122/ 1	0.78	0.78	0.00	0.00	-0.00	-0.00
123/ 7	12.32	-9.40	10.85	0.00	-10.85	-0.00
123/ 1	0.31	0.31	0.00	0.00	-0.00	-0.00
124/ 7	18.00	-16.90	17.45	0.00	-17.45	-0.00
124/ 1	-0.18	-0.18	0.00	0.00	-0.00	-0.00
125/ 8	12.25	-9.31	10.77	0.00	-10.77	-0.00
125/ 9	0.31	0.31	0.0	0.00	0.0	-0.00
126/ 8	9.29	-6.40	7.55	0.29	-7.55	-0.29
126/ 9	0.79	0.79	0.00	0.00	-0.00	-0.00
127/ 8	12.74	-10.31	11.30	0.22	-11.30	-0.22
127/ 9	37.74	-35.31	36.18	0.35	-36.18	-0.35
128/ 7	218.84	-212.57	200.97	14.74	-200.97	-14.74
128/ 7	65.49	-57.47	60.93	0.55	-60.93	-0.55
129/ 7	9.39	-2.32	5.55	0.30	-5.55	-0.30
129/ 7	5.74	1.33	1.90	0.31	-1.90	-0.31
130/ 7	5.67	1.42	1.81	0.31	-1.81	-0.31
130/ 8	9.51	-2.42	5.66	0.31	-5.66	-0.31
131/ 8	65.83	-57.78	61.27	0.54	-61.27	-0.54
131/ 8	219.25	-213.00	201.41	14.72	-201.41	-14.72
132/ 8	13.42	-12.85	13.08	0.06	-13.08	-0.06
132/ 8	9.82	-9.26	9.53	0.01	-9.53	-0.01
133/ 8	9.91	-9.37	9.62	0.02	-9.62	-0.02
133/ 8	13.35	-12.81	13.03	0.05	-13.03	-0.05
134/ 9	15.65	-16.39	15.34	0.68	-15.34	-0.68
134/ 9	6.17	-6.92	4.85	1.70	-4.85	-1.70
135/ 9	6.25	-6.99	4.92	1.70	-4.92	-1.70
135/ 9	15.61	-16.34	15.30	0.68	-15.30	-0.68
136/ 1	20.24	-4.66	11.41	1.04	-11.41	-1.04
136/ 1	34.56	-18.97	2.90	23.87	-2.90	-23.87
137/ 1	43.07	-36.96	25.51	14.50	-25.51	-14.50
137/ 1	38.91	-32.81	29.30	6.56	-29.30	-6.56
138/ 1	39.02	-32.70	29.30	6.56	-29.30	-6.56



BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

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Calculations

Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My) (MPa)	S min(Mz) (MPa)
138/ 1	46.78	-40.62	41.01	2.69	-41.01	-2.69
139/ 1	46.74	-40.59	41.01	2.66	-41.01	-2.66
139/ 9	39.04	-32.73	29.32	6.56	-29.32	-6.56
140/ 9	38.93	-32.84	29.32	6.56	-29.32	-6.56
140/ 9	42.98	-36.88	25.46	14.47	-25.46	-14.47
141/ 9	34.80	-19.22	2.88	24.13	-2.88	-24.13
141/ 9	20.23	-4.64	11.40	1.04	-11.40	-1.04
142/ 1	29.90	-16.36	15.26	7.87	-15.26	-7.87
142/ 1	6.77	6.77	0.00	0.00	-0.00	-0.00
143/ 1	30.10	-16.54	15.20	8.12	-15.20	-8.12
143/ 1	6.78	6.78	0.00	0.00	-0.00	-0.00
144/ 1	10.54	-6.73	6.00	2.64	-6.00	-2.64
144/ 1	1.91	1.91	0.00	0.00	-0.00	-0.00
145/ 1	10.14	-6.17	5.49	2.67	-5.49	-2.67
145/ 1	1.99	1.99	0.00	0.00	-0.00	-0.00
146/ 1	59.38	-47.72	53.34	0.21	-53.34	-0.21
146/ 1	0.94	0.94	0.00	-0.00	-0.00	0.00
147/ 1	52.36	-25.78	7.51	31.56	-7.51	-31.56
147/ 1	70.79	-44.21	18.99	38.51	-18.99	-38.51
148/ 1	20.47	2.91	0.32	8.46	-0.32	-8.46
148/ 1	24.83	-1.44	6.47	6.67	-6.47	-6.67
149/ 1	25.75	-2.38	6.53	7.53	-6.53	-7.53
149/ 1	21.37	2.01	0.26	9.42	-0.26	-9.42
150/ 1	72.44	-45.88	19.33	39.83	-19.33	-39.83
150/ 1	53.69	-27.13	7.79	32.62	-7.79	-32.62
156/ 1	45.80	-45.54	9.30	36.37	-9.30	-36.37
156/ 1	61.76	-61.50	17.18	44.44	-17.18	-44.44
157/ 1	21.81	-20.31	3.19	17.87	-3.19	-17.87
157/ 1	29.23	-27.73	4.99	23.49	-4.99	-23.49
158/ 1	30.08	-28.59	5.34	24.00	-5.34	-24.00
158/ 1	21.58	-20.09	2.85	17.98	-2.85	-17.98
159/ 1	62.79	-62.47	17.98	44.65	-17.98	-44.65
159/ 1	47.86	-47.54	10.03	37.68	-10.03	-37.68
160/ 2	85.40	-107.57	56.65	28.97	-56.65	-50.71
160/ 2	34.86	-21.95	3.96	31.11	-3.96	-17.77
161/ 2	33.51	-23.22	3.99	31.02	-3.99	-17.72
161/ 2	65.09	-52.80	30.90	35.70	-30.90	-20.39
162/ 2	65.10	-52.79	30.90	35.70	-30.90	-20.39
162/ 2	32.65	-22.47	3.41	30.74	-3.41	-17.56
163/ 2	34.02	-21.19	3.38	30.83	-3.38	-17.61
163/ 2	84.58	-106.67	55.90	28.89	-55.90	-50.57
164/ 1	38.05	-31.23	25.47	9.18	-25.47	-9.18
164/ 1	24.62	-17.80	13.48	7.73	-13.48	-7.73
165/ 1	8.82	-40.46	10.96	13.68	-10.96	-13.68
165/ 1	9.74	-41.38	11.14	14.42	-11.14	-14.42
166/ 1	25.74	-18.94	13.65	8.69	-13.65	-8.69
166/ 1	37.45	-30.65	25.63	8.42	-25.63	-8.42
167/ 2	59.45	-21.94	40.48	0.22	-40.48	-0.22
167/ 2	40.43	-2.92	9.74	11.94	-9.74	-11.94
168/ 2	37.59	-5.80	8.90	12.80	-8.90	-12.80
168/ 2	50.94	-19.14	20.52	14.52	-20.52	-14.52
169/ 2	51.14	-19.30	20.53	14.69	-20.53	-14.69

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
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Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My) (MPa)	S min(Mz) (MPa)
169/ 2	35.05	-3.21	9.44	9.69	-9.44	-9.69
170/ 2	39.01	-1.30	10.05	10.11	-10.05	-10.11
170/ 2	62.59	-24.89	40.91	2.83	-40.91	-2.83
171/ 2	11.08	-10.22	10.46	0.19	-10.46	-0.19
171/ 2	16.90	-16.05	16.29	0.18	-16.29	-0.18
172/ 2	-10.73	-22.10	5.46	0.22	-5.46	-0.22
172/ 2	-1.43	-31.39	14.65	0.33	-14.65	-0.33
173/ 2	-3.93	-37.20	15.07	1.57	-15.07	-1.57
173/ 3	3.22	-44.35	21.96	1.82	-21.96	-1.82
174/ 2	11.05	-10.12	10.42	0.17	-10.42	-0.17
174/ 2	16.82	-15.89	16.22	0.14	-16.22	-0.14
175/ 2	-10.77	-21.98	5.39	0.21	-5.39	-0.21
175/ 2	-1.44	-31.32	14.62	0.32	-14.62	-0.32
176/ 2	-3.87	-37.12	15.07	1.55	-15.07	-1.55
176/ 3	3.26	-44.25	21.94	1.82	-21.94	-1.82
177/ 6	14.74	-10.79	12.41	0.36	-12.41	-0.36
177/ 7	15.87	-11.92	13.50	0.40	-13.50	-0.40
178/ 7	16.33	-0.10	7.95	0.27	-7.95	-0.27
178/ 7	11.51	4.72	3.01	0.38	-3.01	-0.38
179/ 7	8.55	-9.92	8.98	0.26	-8.98	-0.26
179/ 7	8.82	-10.19	8.75	0.75	-8.75	-0.75
180/ 6	15.04	-11.07	12.65	0.41	-12.65	-0.41
180/ 7	16.37	-12.40	14.19	0.20	-14.19	-0.20
181/ 7	15.87	0.30	7.54	0.24	-7.54	-0.24
181/ 7	11.62	4.56	3.14	0.39	-3.14	-0.39
182/ 7	8.06	-9.39	8.49	0.24	-8.49	-0.24
182/ 7	8.69	-10.01	8.54	0.81	-8.54	-0.81
183/ 1	12.00	-29.33	20.59	0.08	-20.59	-0.08
183/ 1	25.18	-42.51	25.23	8.61	-25.23	-8.61
184/ 1	20.23	-29.28	23.07	1.68	-23.07	-1.68
184/ 1	3.75	-27.44	13.85	1.74	-13.85	-1.74
185/ 1	35.13	-36.01	32.03	3.54	-32.03	-3.54
185/ 1	41.97	-42.85	37.62	4.79	-37.62	-4.79
186/ 1	11.93	-29.30	20.61	0.00	-20.61	-0.00
186/ 1	25.22	-42.58	25.20	8.70	-25.20	-8.70
187/ 1	20.09	-29.09	22.90	1.69	-22.90	-1.69
187/ 1	3.80	-27.31	13.82	1.74	-13.82	-1.74
188/ 1	35.34	-36.18	32.18	3.58	-32.18	-3.58
188/ 1	42.33	-43.17	37.81	4.93	-37.81	-4.93
189/ 1	31.77	-25.54	7.16	21.50	-7.16	-21.50
189/ 1	24.01	-17.78	18.82	2.08	-18.82	-2.08
190/ 1	9.14	-39.14	20.98	3.16	-20.98	-3.16
190/ 1	15.33	-45.33	25.94	4.39	-25.94	-4.39
191/ 1	32.29	-26.03	7.12	22.04	-7.12	-22.04
191/ 1	24.13	-17.87	18.81	2.19	-18.81	-2.19
192/ 1	9.12	-39.05	20.93	3.15	-20.93	-3.15
192/ 1	15.40	-45.34	25.89	4.48	-25.89	-4.48
193/ 1	-0.23	-24.78	10.42	0.48	-12.97	-0.67
193/ 1	-3.62	-16.93	4.38	3.13	-3.52	-2.27
194/ 1	-0.13	-24.89	10.49	0.51	-13.06	-0.70
194/ 1	-3.49	-17.02	4.48	3.17	-3.60	-2.30
195/ 1	30.34	-26.07	2.45	25.75	-2.45	-25.75

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152		Project: Gelderland Central Power Station				Job Ref.: C2002	
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Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My) (MPa)	S min(Mz) (MPa)
195/ 1	6.35	-3.44	4.29	0.61	-4.29	-0.61
196/ 1	35.33	-37.66	36.39	0.10	-36.39	-0.10
196/ 1	32.24	-34.57	28.57	4.84	-28.57	-4.84
197/ 1	8.20	-14.84	1.42	10.10	-1.42	-10.10
197/ 1	19.53	-27.05	9.15	14.14	-9.15	-14.14
198/ 1	30.57	-26.27	2.48	25.94	-2.48	-25.94
198/ 1	6.13	-3.25	4.16	0.54	-4.16	-0.54
199/ 1	35.40	-37.75	36.54	0.03	-36.54	-0.03
199/ 1	32.42	-34.77	28.70	4.89	-28.70	-4.89
200/ 1	8.11	-14.75	1.30	10.13	-1.30	-10.13
200/ 1	19.41	-26.95	9.12	14.05	-9.12	-14.05
201/ 2	50.23	-25.47	7.01	30.84	-7.01	-30.84
201/ 2	34.07	-9.31	12.10	9.59	-12.10	-9.59
202/ 2	88.16	-44.38	64.52	1.75	-64.52	-1.75
202/ 2	94.33	-50.55	68.59	3.85	-68.59	-3.85
203/ 2	40.74	-39.07	33.18	6.72	-33.18	-6.72
203/ 2	30.11	-28.44	22.21	7.06	-22.21	-7.06
204/ 2	50.07	-25.66	7.17	30.70	-7.17	-30.70
204/ 2	33.72	-9.31	12.06	9.45	-12.06	-9.45
205/ 2	88.20	-44.56	64.70	1.68	-64.70	-1.68
205/ 2	94.48	-50.84	68.76	3.90	-68.76	-3.90
206/ 2	40.77	-39.10	33.21	6.73	-33.21	-6.73
206/ 2	30.00	-28.34	22.20	6.97	-22.20	-6.97
207/ 1	40.11	-26.26	9.35	23.83	-9.35	-23.83
207/ 1	57.95	-44.10	6.40	44.63	-6.40	-44.63
208/ 1	58.08	-43.97	6.40	44.63	-6.40	-44.63
208/ 1	45.71	-31.59	6.63	32.02	-6.63	-32.02
209/ 1	45.70	-31.60	6.63	32.02	-6.63	-32.02
209/ 1	60.16	-46.05	6.43	46.67	-6.43	-46.67
210/ 1	60.02	-46.19	6.43	46.67	-6.43	-46.67
210/ 1	41.77	-27.94	9.36	25.50	-9.36	-25.50
211/ 4	1.61	-7.03	4.29	0.03	-4.29	-0.03
211/ 3	2.26	-7.68	4.93	0.04	-4.93	-0.04
212/ 3	23.73	15.12	4.28	0.03	-4.28	-0.03
212/ 3	23.74	15.11	4.28	0.04	-4.28	-0.04
213/ 3	2.28	-7.68	4.93	0.05	-4.93	-0.05
213/ 3	1.63	-7.03	4.28	0.05	-4.28	-0.05
214/ 6	9.99	-24.42	17.20	0.01	-17.20	-0.01
214/ 6	14.48	-28.91	21.70	0.00	-21.70	-0.00
215/ 6	15.70	-29.86	22.78	0.00	-22.78	-0.00
215/ 6	19.75	-33.92	26.82	0.01	-26.82	-0.01
216/ 6	19.75	-33.92	26.82	0.01	-26.82	-0.01
216/ 6	15.71	-29.88	22.78	0.02	-22.78	-0.02
217/ 6	14.50	-28.92	21.69	0.02	-21.69	-0.02
217/ 6	9.99	-24.41	17.18	0.02	-17.18	-0.02
218/ 1	38.54	-42.26	40.23	0.17	-40.23	-0.17
218/ 1	2.77	-6.49	4.46	0.17	-4.46	-0.17
219/ 1	0.69	-4.67	2.51	0.17	-2.51	-0.17
219/ 1	12.89	-16.87	14.72	0.16	-14.72	-0.16
220/ 1	12.89	-16.87	14.72	0.16	-14.72	-0.16
220/ 1	0.67	-4.66	2.50	0.16	-2.50	-0.16
221/ 1	2.76	-6.48	4.45	0.16	-4.45	-0.16



Anson House, Schooner Court,
Crossways Business Park, Dartford,
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Part of Structure:
Boiler House and Turbine Pedestal support structures

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Calculations

Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My) (MPa)	S min(Mz) (MPa)
221/ 1	38.52	-42.24	40.22	0.16	-40.22	-0.16
222/ 1	-36.65	-49.77	5.52	1.04	-5.52	-1.04
222/ 1	-33.57	-52.85	8.62	1.02	-8.62	-1.02
223/ 1	-33.57	-52.85	8.62	1.02	-8.62	-1.02
223/ 1	-36.66	-49.75	5.52	1.02	-5.52	-1.02
224/ 2	120.44	-110.68	113.87	1.70	-113.87	-1.70
224/ 2	145.35	-135.60	138.83	1.64	-138.83	-1.64
225/ 2	145.37	-135.61	138.83	1.66	-138.83	-1.66
225/ 2	120.35	-110.60	113.86	1.61	-113.86	-1.61
226/ 2	-0.08	-0.08	0.0	0.0	0.0	0.0
226/ 2	-0.08	-0.08	0.00	0.0	-0.00	0.0
227/ 2	-0.07	-0.07	0.0	0.0	0.0	0.0
227/ 2	-0.07	-0.07	0.0	0.0	0.0	0.0
230/ 6	40.69	40.69	0.0	0.0	0.0	0.0
230/ 3	50.41	32.85	8.78	0.00	-8.78	-0.00
231/ 3	50.40	32.83	8.78	0.00	-8.78	-0.00
231/ 6	40.68	40.68	0.0	-0.00	0.0	-0.00
232/ 3	12.15	-1.02	6.58	0.00	-6.58	-0.00
232/ 6	4.62	4.62	0.00	0.00	-0.00	-0.00
233/ 6	4.62	4.62	0.0	0.0	0.0	0.0
233/ 3	12.15	-1.03	6.59	0.00	-6.59	-0.00
234/ 6	15.58	-2.23	0.00	8.90	-0.00	-8.90
234/ 1	21.95	-10.06	0.01	16.00	-0.01	-16.00
235/ 6	15.58	-2.25	0.00	8.91	-0.00	-8.91
235/ 1	21.95	-10.06	0.01	16.00	-0.01	-16.00
236/ 6	2.61	2.60	0.00	0.01	-0.00	-0.01
236/ 1	1.89	1.88	0.00	0.01	-0.00	-0.01
237/ 1	3.14	3.14	0.0	0.0	0.0	0.0
237/ 1	21.30	-17.70	19.50	0.00	-19.50	-0.00
238/ 1	21.31	-17.70	19.51	0.00	-19.51	-0.00
238/ 1	3.14	3.14	0.0	0.00	0.0	-0.00
239/ 1	95.22	95.22	0.0	0.0	0.0	0.0
239/ 2	110.28	77.24	16.52	0.00	-16.52	-0.00
240/ 2	110.28	77.24	16.52	0.00	-16.52	-0.00
240/ 1	95.22	95.22	0.00	0.00	-0.00	-0.00
241/ 2	-4.54	-4.54	0.0	0.0	0.0	0.0
241/ 7	2.28	-14.13	8.19	0.01	-8.19	-0.01
242/ 7	58.76	47.14	5.81	0.00	-5.81	-0.00
242/ 3	54.33	54.33	0.00	0.00	-0.00	-0.00
243/ 2	-4.45	-4.45	0.0	0.0	0.0	0.0
243/ 7	-5.83	-5.83	0.00	0.0	-0.00	0.0
244/ 7	52.92	52.92	0.0	0.0	0.0	0.0
244/ 3	54.30	54.30	0.0	0.00	0.0	0.00
245/ 1	50.75	46.60	0.66	1.42	-0.66	-1.42
245/ 7	64.89	34.33	14.07	1.21	-14.07	-1.21
246/ 7	-6.19	-21.66	7.64	0.10	-7.64	-0.10
246/ 1	-3.66	-26.07	11.03	0.18	-11.03	-0.18
247/ 1	-4.55	-4.55	0.0	0.0	0.0	0.0
247/ 1	4.76	-15.48	9.98	0.14	-9.98	-0.14
248/ 1	43.15	12.94	15.10	0.00	-15.10	-0.00
248/ 1	28.85	28.85	0.00	0.00	-0.00	-0.00
249/ 1	48.69	48.69	0.0	0.0	0.0	0.0



Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Part of Structure:
Boiler House and Turbine Pedestal support structures

Job Ref.:
C2002

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

App'd by:
5.1.2e

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Ref.

Calculations

Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My) (MPa)	S min(Mz) (MPa)
249/ 7	64.32	34.94	13.87	0.82	-13.87	-0.82
250/ 7	-0.57	-27.28	13.35	0.00	-13.35	-0.00
250/ 1	-14.86	-14.86	0.00	0.00	-0.00	-0.00
251/ 1	-4.40	-4.40	0.0	0.0	0.0	0.0
251/ 1	4.88	-15.30	9.95	0.14	-9.95	-0.14
252/ 1	43.06	12.80	15.12	0.00	-15.12	-0.00
252/ 1	28.74	28.74	0.00	0.00	-0.00	-0.00
253/ 7	-1.52	-16.26	7.35	0.02	-7.35	-0.02
253/ 1	-6.53	-13.13	3.26	0.05	-3.26	-0.05
254/ 1	23.07	12.50	5.27	0.02	-5.27	-0.02
254/ 7	19.36	18.09	0.48	0.16	-0.48	-0.16
255/ 7	-1.72	-15.83	7.03	0.02	-7.03	-0.02
255/ 1	-6.23	-13.20	3.44	0.05	-3.44	-0.05
256/ 1	22.99	12.30	5.32	0.02	-5.32	-0.02
256/ 7	19.08	18.09	0.30	0.19	-0.30	-0.19
257/ 1	9.44	9.44	0.0	0.0	0.0	0.0
257/ 1	14.65	2.85	0.00	5.90	-0.00	-5.90
258/ 1	17.00	2.08	1.24	6.22	-1.24	-6.22
258/ 2	22.27	-4.50	13.33	0.05	-13.33	-0.05
260/ 2	61.71	41.40	8.81	1.34	-8.81	-1.34
260/ 1	62.60	41.82	7.00	3.39	-7.00	-3.39
261/ 1	63.87	41.85	6.50	4.51	-6.50	-4.51
261/ 1	53.55	53.55	0.0	0.00	0.0	0.00
262/ 2	9.68	-14.76	6.35	5.88	-6.35	-5.88
262/ 1	0.52	-4.29	2.31	0.10	-2.31	-0.10
263/ 1	12.43	-2.31	6.79	0.58	-6.79	-0.58
263/ 2	16.09	-7.28	0.00	11.68	-0.00	-11.68
264/ 1	9.58	9.58	0.0	0.0	0.0	0.0
264/ 1	14.84	2.93	0.00	5.95	-0.00	-5.95
265/ 1	17.24	2.17	1.27	6.27	-1.27	-6.27
265/ 2	22.48	-4.38	13.39	0.05	-13.39	-0.05
266/ 2	61.63	41.24	8.86	1.34	-8.86	-1.34
266/ 1	62.51	41.68	7.06	3.36	-7.06	-3.36
267/ 1	63.71	41.77	6.46	4.51	-6.46	-4.51
267/ 1	53.43	53.43	-0.00	-0.00	-0.00	-0.00
268/ 2	9.50	-14.82	6.39	5.77	-6.39	-5.77
268/ 1	0.41	-4.42	2.35	0.07	-2.35	-0.07
269/ 1	12.45	-2.26	6.77	0.59	-6.77	-0.59
269/ 2	16.11	-7.23	0.00	11.67	-0.00	-11.67
270/ 1	33.34	17.87	3.84	3.89	-3.84	-3.89
270/ 3	29.33	19.88	4.10	0.62	-4.10	-0.62
271/ 3	20.38	16.87	0.51	1.24	-0.51	-1.24
271/ 1	28.31	10.94	4.78	3.91	-4.78	-3.91
272/ 1	22.16	9.48	1.86	4.48	-1.86	-4.48
272/ 3	16.72	12.92	1.87	0.03	-1.87	-0.03
273/ 3	16.71	12.92	1.86	0.03	-1.86	-0.03
273/ 1	22.16	9.47	1.87	4.48	-1.87	-4.48
274/ 1	28.35	10.98	4.78	3.90	-4.78	-3.90
274/ 3	20.42	16.92	0.51	1.25	-0.51	-1.25
275/ 3	29.35	19.92	4.10	0.62	-4.10	-0.62
275/ 9	33.36	17.91	3.85	3.87	-3.85	-3.87
276/ 3	14.63	14.63	0.0	0.0	0.0	0.0



Anson House, Schooner Court,
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Project:
Gelderland Central Power Station

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C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

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276/ 5	17.40	11.00	3.14	0.06	-3.14	-0.06
277/ 5	17.34	10.82	3.21	0.05	-3.21	-0.05
277/ 1	30.27	-4.25	17.23	0.03	-17.23	-0.03
278/ 9	30.25	-4.23	17.21	0.03	-17.21	-0.03
278/ 5	17.33	10.83	3.19	0.05	-3.19	-0.05
279/ 5	17.39	11.02	3.12	0.06	-3.12	-0.06
279/ 3	14.63	14.63	0.00	-0.00	-0.00	0.00
280/ 5	1.09	-14.24	3.26	4.40	-3.26	-4.40
280/ 3	1.45	-13.74	5.61	1.98	-5.61	-1.98
281/ 3	1.48	-13.72	5.61	2.00	-5.61	-2.00
281/ 5	1.11	-14.22	3.26	4.41	-3.26	-4.41
283/ 1	-20.51	-54.05	0.63	16.14	-0.63	-16.14
283/ 1	-36.40	-36.40	0.00	0.00	-0.00	-0.00
284/ 1	-2.41	-20.13	8.11	0.75	-8.11	-0.75
284/ 1	1.69	-23.31	12.44	0.06	-12.44	-0.06
285/ 1	1.71	-23.30	12.46	0.05	-12.46	-0.05
285/ 1	-2.38	-20.12	8.11	0.77	-8.11	-0.77
286/ 1	-36.40	-36.40	0.0	0.0	0.0	0.0
286/ 1	-20.28	-54.30	0.61	16.40	-0.61	-16.40
287/ 1	27.76	-3.82	3.37	12.43	-3.37	-12.43
287/ 1	24.02	-0.08	1.78	10.26	-1.78	-10.26
288/ 1	24.19	-0.06	1.78	10.34	-1.78	-10.34
288/ 1	27.91	-3.78	3.34	12.51	-3.34	-12.51
289/ 1	29.95	10.29	0.17	9.66	-0.17	-9.66
289/ 1	26.25	13.06	5.43	1.16	-5.43	-1.16
290/ 1	-36.10	-50.41	0.81	6.34	-0.81	-6.34
290/ 1	-35.54	-50.05	0.00	7.25	-0.00	-7.25
291/ 1	-35.58	-50.06	0.00	7.24	-0.00	-7.24
291/ 1	-36.13	-50.44	0.82	6.33	-0.82	-6.33
292/ 1	26.26	13.03	5.43	1.18	-5.43	-1.18
292/ 9	30.00	10.22	0.17	9.71	-0.17	-9.71
293/ 1	-11.66	-25.78	0.04	7.02	-0.04	-7.02
293/ 1	-10.18	-26.06	5.96	1.97	-5.96	-1.97
294/ 1	3.64	-21.49	4.15	8.41	-4.15	-8.41
294/ 1	-8.43	-8.43	0.00	0.00	-0.00	-0.00
295/ 1	-8.42	-8.42	0.0	0.0	0.0	0.0
295/ 1	3.92	-21.75	4.06	8.78	-4.06	-8.78
296/ 1	-10.22	-26.07	5.96	1.96	-5.96	-1.96
296/ 1	-11.76	-25.72	0.04	6.94	-0.04	-6.94
297/ 1	5.46	-14.64	9.77	0.28	-9.77	-0.28
297/ 1	1.25	-10.43	0.08	5.76	-0.08	-5.76
298/ 1	1.48	-10.59	0.08	5.96	-0.08	-5.96
298/ 1	5.50	-14.61	9.78	0.28	-9.78	-0.28
299/ 1	15.42	15.42	0.0	0.0	0.0	0.0
299/ 1	20.42	9.44	1.07	4.42	-1.07	-4.42
300/ 1	-7.82	-33.00	12.36	0.23	-12.36	-0.23
300/ 1	-19.91	-19.91	-0.00	-0.00	-0.00	-0.00
301/ 1	-19.97	-19.97	0.0	0.0	0.0	0.0
301/ 1	-7.14	-33.78	13.10	0.22	-13.10	-0.22
302/ 1	20.79	9.11	1.00	4.84	-1.00	-4.84
302/ 1	15.45	15.45	0.00	0.0	-0.00	0.0
303/ 2	-20.76	-33.92	0.99	5.59	-0.99	-5.59



BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

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303/ 1	-19.14	-34.49	6.11	1.56	-6.11	-1.56
304/ 1	-18.76	-35.17	5.68	2.53	-5.68	-2.53
304/ 2	-21.76	-33.22	1.11	4.62	-1.11	-4.62
305/ 2	44.34	-3.29	9.23	14.59	-9.23	-14.59
305/ 1	39.10	3.00	14.44	3.61	-14.44	-3.61
306/ 1	48.92	45.54	0.38	1.31	-0.38	-1.31
306/ 2	49.45	43.96	0.99	1.75	-0.99	-1.75
307/ 2	48.11	44.82	1.27	0.38	-1.27	-0.38
307/ 1	47.79	46.19	0.60	0.20	-0.60	-0.20
308/ 1	38.10	5.55	16.25	0.02	-16.25	-0.02
308/ 2	36.38	6.23	14.96	0.12	-14.96	-0.12
309/ 1	35.43	-24.51	9.96	20.02	-9.96	-20.02
309/ 2	12.82	-3.27	1.67	6.38	-1.67	-6.38
310/ 2	15.94	-0.20	1.08	6.98	-1.08	-6.98
310/ 1	15.35	-0.98	2.96	5.20	-2.96	-5.20
311/ 2	14.88	-1.02	3.32	4.63	-3.32	-4.63
311/ 1	34.70	-22.21	10.73	17.72	-10.73	-17.72
312/ 2	41.08	-28.03	10.76	23.80	-10.76	-23.80
312/ 1	23.14	-11.46	11.79	5.51	-11.79	-5.51
313/ 2	16.43	-13.91	8.49	6.67	-8.49	-6.67
313/ 1	10.72	-9.57	0.06	10.09	-0.06	-10.09
314/ 2	3.05	-13.96	0.05	8.45	-0.05	-8.45
314/ 1	26.98	-39.08	6.08	26.95	-6.08	-26.95
315/ 2	27.57	-8.10	6.03	11.80	-6.03	-11.80
315/ 1	22.82	-3.05	5.11	7.82	-5.11	-7.82
316/ 2	30.08	0.48	4.71	10.10	-4.71	-10.10
316/ 1	15.76	15.76	-0.00	0.00	-0.00	-0.00
319/ 2	-12.33	-16.51	1.44	0.66	-1.44	-0.66
319/ 1	-3.07	-26.12	11.21	0.32	-11.21	-0.32
320/ 2	-2.09	-25.59	11.27	0.48	-11.27	-0.48
320/ 1	-4.11	-23.93	8.93	0.98	-8.93	-0.98
321/ 2	-4.26	-21.27	7.36	1.14	-7.36	-1.14
321/ 1	-8.14	-17.74	4.61	0.19	-4.61	-0.19
322/ 2	-1.09	-13.81	5.54	0.82	-5.54	-0.82
322/ 1	4.84	-20.10	9.04	3.43	-9.04	-3.43
323/ 2	20.31	1.53	5.37	4.02	-5.37	-4.02
323/ 1	17.51	3.96	2.71	4.06	-2.71	-4.06
324/ 2	-4.10	-15.00	1.96	3.48	-1.96	-3.48
324/ 1	-3.64	-15.47	2.10	3.82	-2.10	-3.82
326/ 2	11.05	-2.91	3.58	3.40	-3.58	-3.40
326/ 1	9.87	-2.08	2.80	3.18	-2.80	-3.18
327/ 2	8.96	1.02	0.08	3.89	-0.08	-3.89
327/ 1	12.83	-2.85	6.05	1.78	-6.05	-1.78
328/ 2	5.88	-5.53	5.57	0.13	-5.57	-0.13
328/ 1	0.47	-0.42	0.43	0.02	-0.43	-0.02
329/ 3	0.58	-0.29	0.43	0.01	-0.43	-0.01
329/ 2	3.38	-3.09	3.08	0.15	-3.08	-0.15
330/ 3	2.93	-3.28	3.08	0.02	-3.08	-0.02
330/ 2	18.90	-35.02	18.12	8.84	-18.12	-8.84
331/ 2	34.20	6.15	8.29	5.74	-8.29	-5.74
331/ 1	27.72	12.64	4.00	3.54	-4.00	-3.54
332/ 2	-7.65	-23.20	3.45	4.32	-3.45	-4.32

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures				Sheet No./rev.:	
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
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Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My) (MPa)	S min(Mz) (MPa)
332/ 2	0.86	-32.06	3.18	13.29	-3.18	-13.29
333/ 2	34.13	12.59	3.13	7.64	-3.13	-7.64
333/ 2	48.38	-1.66	6.23	18.79	-6.23	-18.79
334/ 1	27.76	-32.80	18.08	12.21	-18.08	-12.21
334/ 2	-0.09	-6.32	0.28	2.84	-0.28	-2.84
335/ 2	5.02	-2.94	0.79	3.20	-0.79	-3.20
335/ 2	7.88	-7.17	0.72	6.80	-0.72	-6.80
336/ 2	9.89	-3.67	0.90	5.88	-0.90	-5.88
336/ 2	23.34	-18.49	2.77	18.15	-2.77	-18.15
337/ 2	19.64	-19.41	2.52	17.00	-2.52	-17.00
337/ 2	11.35	-12.49	6.53	5.38	-6.53	-5.38
338/ 2	118.83	-129.00	75.43	48.48	-75.43	-48.48
338/ 2	144.16	-159.41	103.80	47.98	-103.80	-47.98
339/ 2	13.41	-21.51	11.50	5.95	-11.50	-5.95
339/ 2	17.32	-26.61	2.99	18.97	-2.99	-18.97
340/ 2	11.82	-18.11	3.01	11.95	-3.01	-11.95
340/ 2	16.00	-21.99	13.71	5.29	-13.71	-5.29
341/ 2	31.33	-28.96	22.40	7.75	-22.40	-7.75
341/ 2	33.56	-30.22	16.27	15.62	-16.27	-15.62
344/ 2	2.91	-5.69	1.14	3.16	-1.14	-3.16
344/ 2	-0.10	-3.03			5.1.2e	
345/ 2	-3.25	-7.51	0.48	1.65	-0.48	-1.65
345/ 2	-2.43	-8.69	2.80	0.33	-2.80	-0.33
346/ 2	-1.33	-12.42	4.17	1.38	-4.17	-1.38
346/ 2	17.47	-31.58	20.83	3.69	-20.83	-3.69
348/ 2	25.26	-35.02	26.48	3.66	-26.48	-3.66
348/ 2	-4.54	-5.58	0.48	0.04	-0.48	-0.04
349/ 2	-4.52	-5.56	0.48	0.04	-0.48	-0.04
349/ 2	35.64	-46.08	37.05	3.81	-37.05	-3.81
350/ 2	30.53	-2.11	6.53	9.79	-6.53	-9.79
350/ 2	23.11	4.96	6.19	2.89	-6.19	-2.89
351/ 2	-9.67	-17.70	2.37	1.64	-2.37	-1.64
351/ 2	-6.45	-20.92	1.89	5.34	-1.89	-5.34
352/ 2	16.94	5.35	0.02	5.77	-0.02	-5.77
352/ 2	16.41	5.54	0.43	5.00	-0.43	-5.00
353/ 2	0.85	-15.65	1.89	6.36	-1.89	-6.36
353/ 2	4.86	-19.66	4.66	7.60	-4.66	-7.60
354/ 2	11.83	-11.05	6.28	5.16	-6.28	-5.16
354/ 2	9.48	-9.06	4.06	5.21	-4.06	-5.21
355/ 2	50.89	-30.75	6.29	34.53	-6.29	-34.53
355/ 2	27.61	-7.47	16.41	1.13	-16.41	-1.13
356/ 2	27.61	-31.74	28.86	0.82	-28.86	-0.82
356/ 2	23.26	-27.74	23.13	2.37	-23.13	-2.37
357/ 2	30.95	-2.74	11.72	5.12	-11.72	-5.12
357/ 2	42.97	-14.75	7.59	21.27	-7.59	-21.27
358/ 1	18.72	-7.71	11.41	1.81	-11.41	-1.81
358/ 2	6.02	3.62	0.98	0.22	-0.98	-0.22
359/ 2	8.52	7.36	0.20	0.39	-0.20	-0.39
359/ 2	8.66	5.86	0.22	1.18	-0.22	-1.18
360/ 2	9.32	6.87	0.24	0.99	-0.24	-0.99
360/ 2	10.51	4.31	0.26	2.84	-0.26	-2.84
361/ 2	9.90	0.43	0.53	4.20	-0.53	-4.20

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures				Sheet No./rev.:	
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My) (MPa)	S min(Mz) (MPa)
361/ 2	6.04	2.92	1.07	0.49	-1.07	-0.49
362/ 2	0.37	-0.37	0.22	0.15	-0.22	-0.15
362/ 2	6.78	-8.15	2.83	4.63	-2.83	-4.63
363/ 2	0.15	-13.56	2.75	4.10	-2.75	-4.10
363/ 2	4.54	-19.15	2.41	9.44	-2.41	-9.44
364/ 2	9.30	1.44	2.40	1.53	-2.40	-1.53
364/ 2	17.61	-6.57	11.46	0.63	-11.46	-0.63
365/ 2	42.59	-21.82	30.79	1.41	-30.79	-1.41
365/ 2	10.87	10.87	0.00	0.0	-0.00	0.0
367/ 2	-5.68	-16.61	5.35	0.11	-5.35	-0.11
367/ 2	-10.71	-11.93	0.44	0.17	-0.44	-0.17
368/ 2	-12.97	-14.30	0.34	0.32	-0.34	-0.32
368/ 2	-11.09	-16.53	2.34	0.38	-2.34	-0.38
369/ 2	-11.15	-16.53	2.38	0.30	-2.38	-0.30
369/ 2	-13.30	-14.74	0.45	0.27	-0.45	-0.27
370/ 2	-10.24	-11.67	0.64	0.08	-0.64	-0.08
370/ 2	-6.58	-15.68	4.11	0.44	-4.11	-0.44
371/ 2	0.20	-12.74	5.77	0.70	-5.77	-0.70
371/ 2	12.29	-25.19	17.56	1.17	-17.56	-1.17
372/ 2	19.70	2.91	7.62	0.78	-7.62	-0.78
372/ 2	16.65	5.60	4.51	1.01	-4.51	-1.01
373/ 2	-6.49	-12.10	1.76	1.05	-1.76	-1.05
373/ 2	-7.62	-10.98		5.1.2e		
374/ 2	6.70	4.53	0.12	0.96	-0.12	-0.96
374/ 2	7.41	3.46	0.93	1.04	-0.93	-1.04
375/ 2	1.89	-2.84	1.07	1.30	-1.07	-1.30
375/ 2	0.79	-1.73	0.59	0.67	-0.59	-0.67
376/ 2	0.81	-1.53	0.94	0.23	-0.94	-0.23
376/ 2	3.14	-4.21	2.67	1.01	-2.67	-1.01
377/ 2	12.34	6.58	0.54	2.34	-0.54	-2.34
377/ 2	12.40	6.51	0.54	2.41	-0.54	-2.41
378/ 2	-6.82	-14.77	2.07	1.90	-2.07	-1.90
378/ 2	-3.33	-18.62	3.86	3.78	-3.86	-3.78
379/ 2	24.91	10.68	2.97	4.14	-2.97	-4.14
379/ 2	23.56	12.03	4.38	1.39	-4.38	-1.39
380/ 2	-2.71	-24.24	8.94	1.82	-8.94	-1.82
380/ 2	-1.85	-25.45	6.97	4.83	-6.97	-4.83
381/ 2	33.18	16.57	6.30	2.01	-6.30	-2.01
381/ 2	45.50	4.25	14.18	6.44	-14.18	-6.44
382/ 1	29.80	-25.18	14.52	12.97	-14.52	-12.97
382/ 2	5.98	-2.73	0.82	3.54	-0.82	-3.54
383/ 2	9.45	1.44	0.12	3.89	-0.12	-3.89
383/ 2	11.24	-1.72	0.67	5.81	-0.67	-5.81
384/ 2	12.17	0.75	0.79	4.92	-0.79	-4.92
384/ 2	21.92	-10.37	0.05	16.09	-0.05	-16.09
385/ 2	37.13	-28.48	0.07	32.74	-0.07	-32.74
385/ 2	9.32	-2.04	1.17	4.51	-1.17	-4.51
386/ 2	7.65	-7.06	0.54	6.82	-0.54	-6.82
386/ 2	23.24	-24.02	2.21	21.42	-2.21	-21.42
387/ 2	15.30	-26.33	1.97	18.84	-1.97	-18.84
387/ 3	47.14	-59.36	3.07	50.18	-3.07	-50.18
388/ 3	9.54	-13.84	3.10	8.59	-3.10	-8.59



BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

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18/08/22

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Calculations

Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My) (MPa)	S min(Mz) (MPa)
388/ 2	8.99	-12.99	6.57	4.42	-6.57	-4.42
389/ 2	31.64	-26.99	20.50	8.82	-20.50	-8.82
389/ 2	2.81	2.81	0.00	0.0	-0.00	0.0
391/ 2	-0.42	-13.24	3.61	2.80	-3.61	-2.80
391/ 2	-5.97	-8.05	0.28	0.76	-0.28	-0.76
392/ 2	-8.40	-11.90	0.01	1.75	-0.01	-1.75
392/ 2	-8.24	-12.42	1.91	0.18	-1.91	-0.18
393/ 2	-9.35	-13.04	1.81	0.03	-1.81	-0.03
393/ 2	-7.34	-15.41	0.49	3.54	-0.49	-3.54
394/ 2	-6.75	-12.05	0.59	2.06	-0.59	-2.06
394/ 2	-5.47	-13.68	3.08	1.03	-3.08	-1.03
395/ 2	0.66	-12.04	4.34	2.01	-4.34	-2.01
395/ 2	13.40	-25.13	12.68	6.59	-12.68	-6.59
396/ 2	28.89	-2.59	7.24	8.49	-7.24	-8.49
396/ 2	21.13	4.81	5.32	2.84	-5.32	-2.84
400/ 2	-8.32	-15.68	2.15	1.53	-2.15	-1.53
400/ 2	-4.32	-19.68	1.51	6.17	-1.51	-6.17
401/ 2	15.12	1.48	0.80	6.02	-0.80	-6.02
401/ 2	12.80	3.45	0.05	4.63	-0.05	-4.63
402/ 2	3.89	-10.71	1.04	6.26	-1.04	-6.26
402/ 2	-0.63	-6.19	0.97	1.81	-0.97	-1.81
403/ 2	3.09	1.20	0.19	0.75	-0.19	-0.75
403/ 2	8.44	-4.50	1.64	4.83	-1.64	-4.83
404/ 2	30.17	-18.52	0.58	23.76	-0.58	-23.76
404/ 2	17.24	-5.59	0.73	10.68	-0.73	-10.68
405/ 2	1.60	-16.16	1.50	7.38	-1.50	-7.38
405/ 2	10.54	-25.45	2.97	15.02	-2.97	-15.02
406/ 2	29.65	-1.82	2.14	13.60	-2.14	-13.60
406/ 2	21.85	5.98	3.01	4.93	-3.01	-4.93
407/ 2	3.31	-25.71	7.06	7.45	-7.06	-7.45
407/ 2	17.75	-40.49	5.96	23.16	-5.96	-23.16
408/ 2	35.49	7.16	3.99	10.18	-3.99	-10.18
408/ 2	67.61	-24.97	10.02	36.27	-10.02	-36.27
409/ 1	38.32	-25.54	9.38	22.54	-9.38	-22.54
409/ 2	13.45	-2.04	1.08	6.66	-1.08	-6.66
410/ 2	16.22	0.56	0.40	7.43	-0.40	-7.43
410/ 2	14.55	0.86	0.10	6.74	-0.10	-6.74
411/ 2	14.15	2.24	0.06	5.90	-0.06	-5.90
411/ 2	29.05	-14.03	0.04	21.51	-0.04	-21.51
412/ 2	24.14	-11.64	0.26	17.62	-0.26	-17.62
412/ 2	12.12	-0.99	0.76	5.80	-0.76	-5.80
413/ 2	7.78	-4.60	0.04	6.15	-0.04	-6.15
413/ 2	7.88	-6.07	2.18	4.79	-2.18	-4.79
414/ 2	0.40	-10.65	1.72	3.81	-1.72	-3.81
414/ 2	15.42	-26.85	5.29	15.85	-5.29	-15.85
415/ 2	24.08	-5.06	5.26	9.30	-5.26	-9.30
415/ 2	19.63	-0.31	3.41	6.56	-3.41	-6.56
416/ 2	29.14	0.90	6.16	7.96	-6.16	-7.96
416/ 2	15.50	15.50	0.00	0.00	0.00	-0.00
418/ 2	-6.18	-18.87	4.53	1.82	-4.53	-1.82
418/ 2	-11.38	-14.03	0.86	0.46	-0.86	-0.46
419/ 2	-13.56	-15.63	0.77	0.26	-0.77	-0.26

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152		Project: Gelderland Central Power Station				Job Ref.: C2002	
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Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My) (MPa)	S min(Mz) (MPa)
419/ 2	-11.10	-18.45	2.08	1.60	-2.08	-1.60
420/ 2	-11.00	-17.87	2.11	1.32	-2.11	-1.32
420/ 2	-12.48	-16.74	0.91	1.22	-0.91	-1.22
421/ 2	-9.37	-14.50	1.17	1.39	-1.17	-1.39
421/ 2	-9.30	-14.93	2.52	0.30	-2.52	-0.30
422/ 2	-3.79	-11.14	3.66	0.01	-3.66	-0.01
422/ 2	3.23	-18.51	8.77	2.10	-8.77	-2.10
423/ 2	21.07	-0.79	6.28	4.64	-6.28	-4.64
423/ 2	18.59	1.34	3.58	5.05	-3.58	-5.05
424/ 2	-1.31	-14.05	1.87	4.50	-1.87	-4.50
424/ 2	-2.16	-13.20	5.1.2e		5.1.2e	
425/ 2	8.79	0.21	0.06	4.23	-0.06	-4.23
425/ 2	9.57	-0.92	1.35	3.89	-1.35	-3.89
426/ 2	8.05	-6.66	0.97	6.38	-0.97	-6.38
426/ 2	3.91	-2.52	0.57	2.65	-0.57	-2.65
427/ 2	-0.09	-3.18	0.86	0.69	-0.86	-0.69
427/ 2	15.81	-19.43	2.57	15.05	-2.57	-15.05
428/ 2	27.14	-10.46	0.27	18.53	-0.27	-18.53
428/ 2	8.84	7.83	0.10	0.41	-0.10	-0.41
429/ 2	-5.31	-13.28	2.19	1.80	-2.19	-1.80
429/ 2	-2.53	-16.42	3.83	3.12	-3.83	-3.12
430/ 2	19.23	12.79	1.90	1.32	-1.90	-1.32
430/ 2	20.21	11.80	2.64	1.56	-2.64	-1.56
431/ 2	-5.69	-22.77	6.51	2.03	-6.51	-2.03
431/ 2	-0.93	-27.89	6.01	7.47	-6.01	-7.47
432/ 2	31.54	16.96	2.27	5.02	-2.27	-5.02
432/ 2	42.18	6.32	6.39	11.54	-6.39	-11.54
433/ 2	27.91	-20.27	1.97	22.13	-1.97	-22.13
433/ 2	31.99	-24.35	0.99	27.19	-0.99	-27.19
434/ 2	21.76	-4.58	1.54	11.63	-1.54	-11.63
434/ 2	14.74	2.44	4.33	1.82	-4.33	-1.82
435/ 2	20.99	-3.88	2.90	9.54	-2.90	-9.54
435/ 3	76.12	-59.02	1.84	65.73	-1.84	-65.73
436/ 3	33.82	-25.97	5.24	24.66	-5.24	-24.66
436/ 2	17.29	-9.45	0.35	13.02	-0.35	-13.02
437/ 2	40.83	-40.73	9.54	31.24	-9.54	-31.24
437/ 2	39.99	-39.89	4.97	34.97	-4.97	-34.97
438/ 2	7.51	-7.28	2.88	4.51	-2.88	-4.51
438/ 2	20.76	-20.54	7.87	12.78	-7.87	-12.78
439/ 2	19.75	-19.40	7.50	12.08	-7.50	-12.08
439/ 2	6.09	-5.74	1.49	4.43	-1.49	-4.43
440/ 2	47.79	-47.86	12.98	34.85	-12.98	-34.85
440/ 2	41.07	-41.14	9.64	31.47	-9.64	-31.47
441/ 2	-53.43	-140.34	23.24	3.89	-58.22	-1.55
441/ 2	-79.93	-79.93	0.0	0.00	0.0	0.00
442/ 2	115.64	61.08	15.57	2.24	-38.99	2.24
442/ 2	116.37	53.70	17.02	2.16	-42.63	-0.86
443/ 3	117.98	56.03	17.68	1.38	-44.27	1.38
443/ 2	115.93	62.52	15.24	1.13	-38.17	1.13
444/ 2	-63.04	-125.49	17.82	0.17	-44.63	0.17
444/ 2	-64.90	-119.25	14.67	2.10	-36.74	-0.84
445/ 2	194.52	156.89	16.20	2.61	-16.20	-2.61

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152		Project: Gelderland Central Power Station				Job Ref.: C2002	
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445/ 2	191.99	159.41	6.41	9.88	-6.41	-9.88
447/ 2	86.93	45.22	4.87	15.98	-4.87	-15.98
447/ 2	82.86	49.30	4.01	12.77	-4.01	-12.77
448/ 2	-57.76	-74.40	4.02	4.30	-4.02	-4.30
448/ 2	-64.87	-67.28	0.15	1.05	-0.15	-1.05
449/ 2	-65.20	-67.62	0.19	1.02	-0.19	-1.02
449/ 1	-58.63	-74.18	3.49	4.29	-3.49	-4.29
450/ 1	82.61	50.21	3.47	12.73	-3.47	-12.73
450/ 2	86.80	46.02	4.45	15.94	-4.45	-15.94
451/ 1	192.98	157.24	8.12	9.75	-8.12	-9.75
451/ 2	192.16	158.05	14.49	2.57	-14.49	-2.57
452/ 2	135.36	76.25	5.63	23.93	-5.63	-23.93
452/ 2	131.84	79.77	16.97	9.07	-16.97	-9.07
453/ 2	195.46	138.11	20.67	8.00	-20.67	-8.00
453/ 1	194.80	138.71	20.12	7.93	-20.12	-7.93
454/ 1	131.47	79.47	16.91	9.09	-16.91	-9.09
454/ 1	135.87	75.07	6.62	23.78	-6.62	-23.78
455/ 1	-8.21	-98.76	42.37	2.90	-42.37	-2.90
455/ 1	-36.91	-70.06	14.19	2.38	-14.19	-2.38
456/ 1	63.11	31.46	12.43	3.40	-12.43	-3.40
456/ 1	72.01	22.56	24.24	0.48	-24.24	-0.48
457/ 1	71.90	22.51	24.24	0.45	-24.24	-0.45
457/ 1	63.03	31.39	12.43	3.39	-12.43	-3.39
458/ 1	-36.77	-70.03	14.19	2.44	-14.19	-2.44
458/ 1	-7.99	-98.81	42.37	3.04	-42.37	-3.04
459/ 1	110.95	-14.93	54.16	8.79	-54.16	-8.79
459/ 1	72.35	23.67	18.31	6.03	-18.31	-6.03
460/ 1	-33.72	-75.29	20.71	0.07	-20.71	-0.07
460/ 1	-19.60	-89.41	33.20	1.70	-33.20	-1.70
461/ 1	-19.10	-89.75	33.20	2.12	-33.20	-2.12
461/ 1	-33.45	-75.39	20.71	0.26	-20.71	-0.26
462/ 1	72.40	23.47	18.31	6.15	-18.31	-6.15
462/ 1	111.07	-15.19	54.15	8.98	-54.15	-8.98
463/ 1	100.94	36.66	26.19	5.95	-26.19	-5.95
463/ 1	81.90	55.71	7.79	5.31	-7.79	-5.31
464/ 1	6.16	-18.98	12.10	0.47	-12.10	-0.47
464/ 1	6.22	-19.00	12.10	0.51	-12.10	-0.51
465/ 1	81.80	55.59	7.79	5.32	-7.79	-5.32
465/ 1	100.78	36.61	26.19	5.89	-26.19	-5.89
466/ 1	5.46	-5.22	0.03	5.31	-0.03	-5.31
466/ 1	16.00	-15.76	13.13	2.75	-13.13	-2.75
467/ 1	26.96	-7.77	13.51	3.85	-13.51	-3.85
467/ 1	41.71	-22.52	25.34	6.77	-25.34	-6.77
468/ 1	41.72	-22.53	25.34	6.78	-25.34	-6.78
468/ 1	26.97	-7.78	13.51	3.86	-13.51	-3.86
469/ 1	16.01	-15.77	13.13	2.76	-13.13	-2.76
469/ 1	5.47	-5.23	0.03	5.32	-0.03	-5.32
470/ 1	2.19	-11.67	1.35	5.57	-1.35	-5.57
470/ 1	9.03	-18.51	13.40	0.37	-13.40	-0.37
471/ 1	9.07	-18.60	13.33	0.51	-13.33	-0.51
471/ 1	20.27	-29.80	20.11	4.92	-20.11	-4.92
472/ 1	20.27	-29.80	20.11	4.92	-20.11	-4.92



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Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

App'd by:
5.1.2e

Date:
18/08/22

Ref.

Calculations

Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My) (MPa)	S min(Mz) (MPa)
472/ 1	9.08	-18.60	13.33	0.51	-13.33	-0.51
473/ 1	9.03	-18.51	13.40	0.37	-13.40	-0.37
473/ 1	2.19	-11.67	1.35	5.57	-1.35	-5.57
474/ 1	56.97	10.50	16.56	6.68	-16.56	-6.68
474/ 1	39.73	27.78	1.89	4.09	-1.89	-4.09
475/ 1	-24.90	-41.51	2.82	5.49	-2.82	-5.49
475/ 1	-7.00	-59.40	20.62	5.58	-20.62	-5.58
476/ 1	-7.00	-59.40	20.62	5.58	-20.62	-5.58
476/ 1	-24.89	-41.51	2.82	5.49	-2.82	-5.49
477/ 1	39.73	27.78	1.89	4.08	-1.89	-4.08
477/ 1	56.98	10.50	16.56	6.68	-16.56	-6.68
478/ 1	2.17	-2.29	0.02	2.21	-0.02	-2.21
478/ 1	5.04	-5.16	0.49	4.62	-0.49	-4.62
479/ 1	3.44	-3.31	0.33	3.04	-0.33	-3.04
479/ 1	0.61	-0.48	0.01	0.53	-0.01	-0.53
480/ 1	0.61	-0.48	0.01	0.53	-0.01	-0.53
480/ 1	3.44	-3.31	0.33	3.04	-0.33	-3.04
481/ 1	5.05	-5.17	0.49	4.62	-0.49	-4.62
481/ 1	2.17	-2.30	0.02	2.22	-0.02	-2.22
482/ 1	37.35	-23.85	28.53	2.06	-28.53	-2.06
482/ 1	12.08	12.08	0.00	0.00	-0.00	-0.00
483/ 1	72.11	-50.89	61.50	0.00	-61.50	-0.00
483/ 1	-0.05	-0.05	0.00	0.00	-0.00	-0.00
484/ 1	37.33	-23.85	28.54	2.05	-28.54	-2.05
484/ 1	12.07	12.07	0.00	0.00	-0.00	-0.00
485/ 1	-2.06	-2.06	0.00	-0.00	-0.00	0.00
485/ 1	2.96	-8.69	5.83	0.00	-5.83	-0.00
486/ 8	8.34	-8.69	8.00	0.51	-8.00	-0.51
486/ 9	5.42	-5.76	4.49	1.10	-4.49	-1.10
487/ 9	55.71	-26.30	38.30	2.70	-38.30	-2.70
487/ 1	70.72	-41.31	53.83	2.19	-53.83	-2.19
488/ 1	46.17	-15.97	26.73	4.34	-26.73	-4.34
488/ 9	38.37	-8.17	19.84	3.43	-19.84	-3.43
489/ 9	11.62	0.49	5.27	0.29	-5.27	-0.29
489/ 8	8.66	3.45	2.40	0.21	-2.40	-0.21
490/ 8	8.67	3.46	2.39	0.21	-2.39	-0.21
490/ 9	11.64	0.49	5.28	0.29	-5.28	-0.29
491/ 9	38.43	-8.11	19.84	3.43	-19.84	-3.43
491/ 9	46.21	-15.88	26.71	4.33	-26.71	-4.33
492/ 9	70.80	-41.31	53.82	2.24	-53.82	-2.24
492/ 9	55.80	-26.31	38.32	2.73	-38.32	-2.73
493/ 9	5.46	-5.75	4.50	1.10	-4.50	-1.10
493/ 8	8.37	-8.65	8.00	0.51	-8.00	-0.51
494/ 9	10.49	-7.09	8.62	0.17	-8.62	-0.17
494/ 8	6.29	-2.90	4.47	0.13	-4.47	-0.13
495/ 8	10.10	-5.30	5.30	2.40	-5.30	-2.40
495/ 7	20.84	-16.04	14.40	4.04	-14.40	-4.04
496/ 7	13.69	-21.01	14.10	3.25	-14.10	-3.25
496/ 8	2.94	-10.26	5.88	0.72	-5.88	-0.72
497/ 8	7.96	-7.41	7.25	0.43	-7.25	-0.43
497/ 9	2.75	-2.20	2.12	0.35	-2.12	-0.35
498/ 9	2.75	-2.20	2.12	0.35	-2.12	-0.35



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Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

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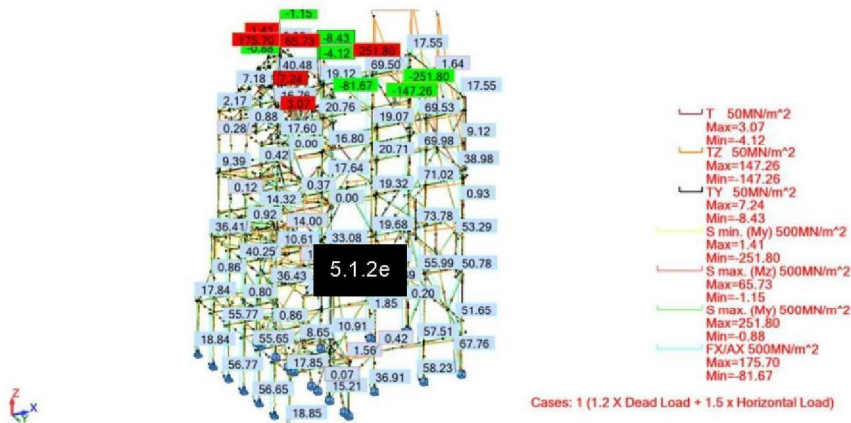
Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My) (MPa)	S min(Mz) (MPa)
498/ 8	7.96	-7.41	7.25	0.44	-7.25	-0.44
499/ 8	2.96	-10.33	5.92	0.72	-5.92	-0.72
499/ 8	13.73	-21.10	14.16	3.26	-14.16	-3.26
500/ 8	20.92	-16.07	14.46	4.03	-14.46	-4.03
500/ 8	10.12	-5.27	5.30	2.40	-5.30	-2.40
501/ 8	6.30	-2.96	4.50	0.13	-4.50	-0.13
501/ 9	10.44	-7.10	8.60	0.17	-8.60	-0.17
502/ 8	-4.38	-10.09	2.29	0.56	-2.29	-0.56
502/ 9	-2.48	-11.98	4.44	0.31	-4.44	-0.31
503/ 9	5.90	-4.16	3.46	1.57	-3.46	-1.57
503/ 8	5.81	-4.07	3.59	1.35	-3.59	-1.35
504/ 8	5.85	-4.06	3.60	1.36	-3.60	-1.36
504/ 9	5.96	-4.17	3.49	1.58	-3.49	-1.58
505/ 9	-2.53	-12.07	4.46	0.31	-4.46	-0.31
505/ 8	-4.41	-10.19	2.33	0.56	-2.33	-0.56
506/ 3	1.73	-7.29	3.13	1.38	-3.13	-1.38
506/ 3	1.45	-7.01	3.60	0.63	-3.60	-0.63
507/ 3	6.25	-2.31	4.12	0.16	-4.12	-0.16
507/ 3	4.95	-1.01	2.45	0.52	-2.45	-0.52
508/ 3	2.12	-4.51	2.84	0.47	-2.84	-0.47
508/ 3	3.63	-6.03	4.50	0.33	-4.50	-0.33
509/ 3	3.63	-6.04	4.50	0.33	-4.50	-0.33
509/ 3	2.12	-4.53	2.85	0.48	-2.85	-0.48
510/ 3	4.98	-1.00	2.46	0.53	-2.46	-0.53
510/ 3	6.27	-2.29	4.12	0.16	-4.12	-0.16
511/ 3	1.45	-7.01	3.60	0.63	-3.60	-0.63
511/ 3	1.74	-7.29	3.13	1.38	-3.13	-1.38
512/ 3	3.11	-2.78	2.55	0.40	-2.55	-0.40
512/ 3	3.12	-2.78	2.69	0.26	-2.69	-0.26
513/ 3	0.77	-2.58	1.64	0.04	-1.64	-0.04
513/ 3	-0.58	-1.23	0.14	0.19	-0.14	-0.19
514/ 3	-0.41	-1.15	0.33	0.04	-0.33	-0.04
514/ 3	2.82	-4.38	3.41	0.19	-3.41	-0.19
515/ 3	2.82	-4.38	3.41	0.20	-3.41	-0.20
515/ 3	-0.43	-1.13	0.30	0.05	-0.30	-0.05
516/ 3	-0.53	-1.28	0.18	0.19	-0.18	-0.19
516/ 3	0.74	-2.56	1.61	0.04	-1.61	-0.04
517/ 3	3.13	-2.80	2.70	0.26	-2.70	-0.26
517/ 3	3.11	-2.77	2.54	0.40	-2.54	-0.40
518/ 3	3.59	-3.21	0.61	2.79	-0.61	-2.79
518/ 3	4.02	-3.64	1.34	2.50	-1.34	-2.50
519/ 3	3.05	-3.42	1.45	1.79	-1.45	-1.79
519/ 3	2.04	-2.41	0.65	1.57	-0.65	-1.57
520/ 3	2.24	-1.29	1.02	0.74	-1.02	-0.74
520/ 3	5.87	-4.92	4.85	0.55	-4.85	-0.55
521/ 3	5.88	-4.93	4.85	0.55	-4.85	-0.55
521/ 3	2.23	-1.29	1.01	0.75	-1.01	-0.75
522/ 3	2.03	-2.42	0.64	1.58	-0.64	-1.58
522/ 3	3.04	-3.43	1.44	1.80	-1.44	-1.80
523/ 3	4.01	-3.64	1.33	2.50	-1.33	-2.50
523/ 3	3.59	-3.22	0.61	2.79	-0.61	-2.79
524/ 2	31.28	31.28	0.0	0.0	0.0	0.0

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152		Project: Gelderland Central Power Station			Job Ref.: C2002	
		Part of Structure: Boiler House and Turbine Pedestal support structures			Sheet No./rev.:	
		Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22	
Ref.	Calculations				Output	

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My) (MPa)	S min(Mz) (MPa)
524/ 3	30.28	30.28	0.00	0.00	-0.00	-0.00
526/ 3	30.27	30.27	0.0	0.0	0.0	0.0
526/ 2	31.27	31.27	0.0	0.0	0.0	0.0
527/ 1	-21.40	-21.40	0.0	0.0	0.0	0.0
527/ 2	-8.49	-35.76	13.64	0.00	-13.64	-0.00
528/ 1	-21.34	-21.34	0.0	0.0	0.0	0.0
528/ 2	-8.46	-35.65	13.60	0.00	-13.60	-0.00
529/ 2	-6.05	-18.10	4.46	1.57	-4.46	-1.57
529/ 2	-10.28	-14.22	0.73	1.24	-0.73	-1.24
530/ 1	24.18	-17.05	11.59	9.02	-11.59	-9.02
530/ 2	7.83	7.83	0.00	0.00	-0.00	-0.00
531/ 1	74.46	-51.15	39.24	23.56	-39.24	-23.56
531/ 2	-1.99	-1.99	0.00	0.00	-0.00	-0.00
532/ 1	23.27	-6.33	14.37	0.43	-14.37	-0.43
532/ 2	12.37	12.37	0.00	0.0	-0.00	0.0
533/ 1	58.67	-39.42	25.62	23.42	-25.62	-23.42
533/ 2	-2.05	-2.05	0.00	0.00	-0.00	-0.00
534/ 1	22.55	-16.15	10.66	8.69	-10.66	-8.69
534/ 2	7.64	7.64	0.00	0.00	-0.00	-0.00

View - S max(My),S max(Mz),S min(My),Fx/Ax,TY,TZ,T, Cases: 1 (1.2 X Dead Load + 1.5 x Horizontal Load)



 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
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		Date: 18/08/22				
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	ANALYSIS OF STRUCTURE – HORIZONTAL LOAD IN E to W DIRECTION.	
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 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
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				Date: 18/08/22		
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Loads			
Case	Load type	List	
1	self-weight	1 6 7 9to37 4	
1	uniform load	167 168	
1	uniform load	169 170	
1	uniform load	226	
1	uniform load	227	
1	uniform load	224 225	
1	uniform load	309to314 334	
1	uniform load		
1	member force		
1	member force		
1	member force		
1	uniform load	142to146	
1	member force	144 145	
1	member force	142 143	
1	member force	146	
1	member force	146	
1	uniform load	482to484	
1	uniform load	122to126	
1	uniform load	121 127	
1	member force	124	
1	uniform load	98to104	
1	member force	98to100 102	
1	member force	101 103 104	
1	uniform load	530to534	
1	member force	530 534	
1	member force	530 534	
1	member force	530 534	
1	nodal force	226	
1	nodal force	222	
1	nodal force	221	
1	nodal force	215	
1	nodal force	193	
1	nodal force	177	
1	nodal force	181	
1	nodal force	184	
1	nodal force	188	
1	nodal force	167	
1	nodal force	166	
1	nodal force	163	
1	nodal force	162	
1	nodal force	148	
1	nodal force	115	
1	nodal force	132	
1	nodal force	136	
1	nodal force	140	
1	nodal force	141	
1	nodal force	75	
1	nodal force	31	
1	nodal force	72	

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
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Case	Load type	List
1	nodal force	28
1	nodal force	71
1	nodal force	27
1	nodal force	68
1	nodal force	55
1	nodal force	76
1	nodal force	41

Load values	
PZ Negative Factor=1.00	
PZ=-85.00(kN/m)	
PZ=-85.00(kN/m)	
PZ=-170.00(kN/m)	
PZ=-860.00(kN/m)	
PZ=-515.00(kN/m)	
PZ=-3.00(kN/m)	
PZ=-4.00(kN/m)	
FZ=-11.00(kN) X=0.25 relative	
FZ=-11.00(kN) X=0.25 relative	
FZ=-11.00(kN) X=0.75 relative	
PZ=-63.00(kN/m)	
FZ=-510.00(kN) X=0.40 relative	
FZ=-250.00(kN) X=0.80 relative	
FZ=-31.00(kN) X=0.30 relative	
FZ=-31.00(kN) X=0.30 relative	
PZ=-1.00(kN/m)	
PZ=-234.00(kN/m)	
PZ=-117.00(kN/m)	
FZ=-31.00(kN) X=0.30 relative	
PZ=-72.00(kN/m)	
FZ=-150.00(kN) X=0.50 relative	
FZ=-150.00(kN) X=0.50 relative	
PZ=-4.00(kN/m)	
FZ=-11.00(kN) X=0.25 relative	
FZ=-11.00(kN) X=0.25 relative	
FZ=-11.00(kN) X=0.75 relative	
FY=325.00(kN)	
FY=375.00(kN)	
FY=410.00(kN)	
FY=450.00(kN)	
FY=230.00(kN)	
FY=215.00(kN)	
FY=195.00(kN)	
FY=170.00(kN)	
FY=155.00(kN)	
FY=145.00(kN)	
FY=200.00(kN)	
FY=185.00(kN)	
FY=205.00(kN)	
FY=195.00(kN)	
FY=75.00(kN)	

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	Calc. by: 5.1.2e		Date: 18/08/22		App'd by: 5.1.2e	
		Date: 18/08/22				
Ref.	Calculations				Output	

Load values	
	FY=185.00(kN)
	FY=165.00(kN)
	FY=155.00(kN)
	FY=135.00(kN)
	FY=120.00(kN)
	FY=20.00(kN)
	FY=140.00(kN)
	FY=25.00(kN)
	FY=155.00(kN)
	FY=25.00(kN)
	FY=170.00(kN)
	FY=30.00(kN)
	FY=100.00(kN)
	FY=35.00(kN)

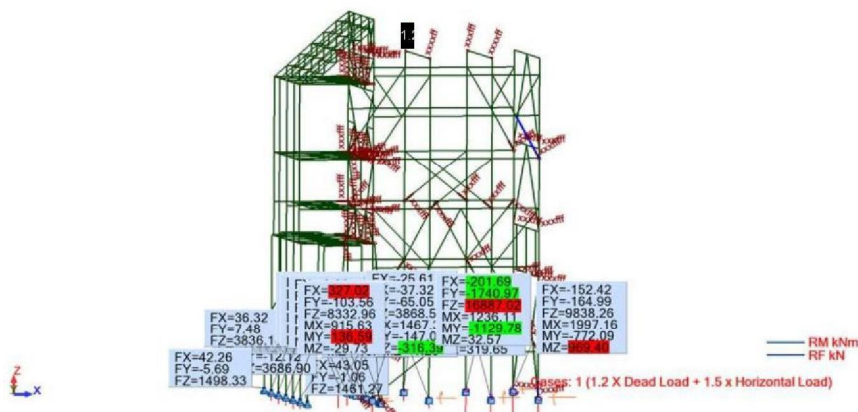
 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152		Project: Gelderland Central Power Station			Job Ref.: C2002	
		Part of Structure: Boiler House and Turbine Pedestal support structures			Sheet No./rev.:	
		Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22	
Ref.	Calculations					Output

reactions: values

in the coordinate system: global - Case: 1 (1.2 X Dead Load + 1.5 x Horizontal Load)

Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
1/ 1	43.05	-1.06	1461.27	-0.00	0.0	0.0
2/ 1	39.13	-12.12	3686.90	-0.00	-0.00	0.0
3/ 1	40.06	-0.84	4424.81	0.00	0.00	0.0
4/ 1	39.02	-4.05	4134.14	-0.00	-0.00	0.0
5/ 1	37.23	-5.84	4322.27	-0.00	0.0	0.0
6/ 1	36.32	7.48	3836.18	0.0	0.0	0.0
7/ 1	42.26	-5.69	1498.33	0.0	0.0	0.0
8/ 1	-25.61	-271.79	7810.49	2062.27	-277.62	56.76
9/ 1	-1.00	-1134.56	1940.22	-16.23	-5.39	-2.25
10/ 1	49.75	-238.92	5873.22	1722.90	-147.10	32.84
11/ 1	-0.39	-5.37	30.97	78.38	-1.72	2.66
12/ 1	1.01	-489.43	1389.31	23.00	14.43	3.95
13/ 1	1.39	21.24	112.09	75.59	16.74	-2.73
14/ 1	0.35	-958.16	2037.08	-24.27	7.59	0.91
15/ 1	327.02	-103.56	8332.96	915.63	136.59	-29.73
16/ 1	0.01	307.57	555.45	69.95	5.20	-1.25
17/ 1	8.10	-47.01	1557.96	623.78	123.46	-13.87
18/ 1	-37.32	-65.05	3868.59	1467.33	-147.06	-316.39
19/ 1	-58.79	-2.88	4204.89	262.34	-314.77	-23.60
20/ 1	-108.39	4.82	8774.87	211.88	-575.82	17.52
21/ 1	-79.09	-78.82	8007.11	1552.29	-365.04	319.65
22/ 1	-152.42	-164.99	9838.26	1997.16	-772.09	969.40
23/ 1	-201.69	-1740.97	16887.02	1236.11	-1129.78	32.57
Case 1 1.2 X Dead Load + 1.5 x Horizontal Load						
Sum of val.	-0.00	-4990.00	104584.40	12258.12	-3432.39	1046.43
Sum of reac.	-0.00	-4990.00	104584.40	2774782.20	-2739111.98	-140511.50
Sum of forc.	-0.00	4990.00	-104584.40	-2774782.20	2739111.98	140511.50
Check val.	-0.00	0.00	0.00	-0.00	-0.00	0.00
Precision	1.41239e-09	2.30884e-20				

View - Reaction forces(kN),Reaction moments(kN*m), Cases: 1 (1.2 X Dead Load + 1.5 x Horizontal Load)





BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

App'd by:
5.1.2e

Date:
18/08/22

Ref.

Calculations

Output

displacements: values

- Case: 1 (1.2 X Dead Load + 1.5 x Horizontal Load)

Node/Case	UX (mm)	UY (mm)	UZ (mm)	RX (Rad)	RY (Rad)	RZ (Rad)
1/ 1	0.0	0.0	0.0	-0.000	-0.001	-0.000
2/ 1	0.0	0.0	0.0	-0.001	-0.001	-0.000
3/ 1	0.0	0.0	0.0	-0.000	-0.001	-0.000
4/ 1	0.0	0.0	0.0	-0.000	-0.001	-0.000
5/ 1	0.0	0.0	0.0	-0.001	-0.001	-0.000
6/ 1	0.0	0.0	0.0	-0.000	-0.000	-0.000
7/ 1	0.0	0.0	0.0	-0.001	-0.000	-0.000
8/ 1	0.0	0.0	0.0	0.0	0.0	0.0
9/ 1	0.0	0.0	0.0	0.0	0.0	0.0
10/ 1	0.0	0.0	0.0	0.0	0.0	0.0
11/ 1	0.0	0.0	0.0	0.0	0.0	0.0
12/ 1	0.0	0.0	0.0	0.0	0.0	0.0
13/ 1	0.0	0.0	0.0	0.0	0.0	0.0
14/ 1	0.0	0.0	0.0	0.0	0.0	0.0
15/ 1	0.0	0.0	0.0	0.0	0.0	0.0
16/ 1	0.0	0.0	0.0	0.0	0.0	0.0
17/ 1	0.0	0.0	0.0	0.0	0.0	0.0
18/ 1	0.0	0.0	0.0	0.0	0.0	0.0
19/ 1	0.0	0.0	0.0	0.0	0.0	0.0
20/ 1	0.0	0.0	0.0	0.0	0.0	0.0
21/ 1	0.0	0.0	0.0	0.0	0.0	0.0
22/ 1	0.0	0.0	0.0	0.0	0.0	0.0
23/ 1	0.0	0.0	0.0	0.0	0.0	0.0
24/ 1	-1	2	-2	-0.000	-0.000	0.000
25/ 1	0	3	-1	-0.000	0.000	-0.000
26/ 1	1	2	-1	-0.000	0.000	0.000
27/ 1	0	8	-1	-0.002	-0.000	0.001
28/ 1	1	9	-3	-0.002	-0.000	-0.001
29/ 1	2	2	-3	-0.000	0.000	-0.000
30/ 1	2	2	-3	-0.000	0.000	-0.000
31/ 1	1	3	-2	-0.000	0.000	-0.001
32/ 1	-1	2	-0	-0.000	-0.000	0.000
33/ 1	-1	2	-2	-0.000	-0.000	0.000
34/ 1	-2	3	-1	0.000	-0.000	-0.000
35/ 1	0	4	-2	-0.000	-0.000	-0.000
36/ 1	1	5	-2	-0.000	0.000	-0.000
38/ 1	5	4	-2	-0.000	0.000	0.001
39/ 1	9	5	-3	0.000	-0.000	-0.000
40/ 1	1	4	-3	-0.000	-0.000	-0.002
41/ 1	-1	5	-1	-0.000	0.001	-0.000
42/ 1	-1	5	-3	-0.000	0.001	-0.000
43/ 1	-2	5	-4	-0.000	0.001	-0.000
44/ 1	-2	5	-4	-0.000	0.001	-0.000
45/ 1	-1	5	-4	-0.000	0.001	-0.000
46/ 1	0	6	-3	-0.001	0.001	-0.000
47/ 1	1	6	-1	-0.000	0.001	-0.000
49/ 1	0	4	-2	-0.000	0.000	-0.000
52/ 1	-1	3	-2	-0.000	-0.000	-0.000
53/ 1	-2	2	-3	0.000	-0.000	0.000



Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

App'd by:
5.1.2e

Date:
18/08/22

Ref.

Calculations

Output

Node/Case	UX (mm)	UY (mm)	UZ (mm)	RX (Rad)	RY (Rad)	RZ (Rad)
55/ 1	-1	2	-2	-0.000	-0.000	-0.000
57/ 1	-1	4	-1	-0.000	-0.000	-0.000
58/ 1	2	6	-3	-0.000	0.000	-0.000
59/ 1	-0	7	-2	-0.001	-0.000	-0.001
60/ 1	3	8	-2	-0.001	-0.000	-0.000
61/ 1	2	8	-2	-0.001	0.000	0.000
62/ 1	-1	4	-1	-0.001	0.000	0.000
63/ 1	-2	9	-5	-0.001	-0.000	-0.004
64/ 1	9	9	-9	-0.000	0.000	-0.002
65/ 1	12	9	-3	0.000	0.000	0.001
66/ 1	1	10	-5	-0.001	0.000	0.001
67/ 1	1	10	-8	-0.001	-0.000	-0.000
68/ 1	-2	11	-5	-0.001	-0.000	0.003
69/ 1	1	14	-4	-0.000	0.000	-0.000
70/ 1	1	14	-4	-0.001	0.000	0.000
71/ 1	-2	55	-4	-0.003	0.000	0.003
72/ 1	-2	54	-7	-0.003	0.000	-0.003
73/ 1	0	15	-8	-0.001	0.000	-0.000
74/ 1	0	13	-8	-0.002	-0.000	-0.000
75/ 1	-2	13	-6	-0.002	-0.000	-0.004
76/ 1	-1	15	-7	-0.002	0.002	-0.000
77/ 1	-1	15	-15	0.001	-0.001	-0.000
78/ 1	-1	15	-8	-0.000	0.002	-0.000
79/ 1	-1	15	-8	-0.001	0.002	-0.000
80/ 1	1	15	-8	-0.001	0.002	-0.000
81/ 1	1	15	-13	-0.001	0.000	-0.000
82/ 1	2	15	-7	0.002	0.001	-0.000
83/ 1	3	14	-3	-0.000	0.001	-0.000
84/ 1	2	14	-11	0.002	0.001	-0.000
85/ 1	1	14	-13	-0.001	0.001	-0.000
86/ 1	-1	14	-13	-0.001	0.002	-0.000
87/ 1	-1	14	-13	-0.000	0.001	-0.000
88/ 1	-1	14	-11	-0.002	0.001	-0.000
89/ 1	-2	14	-2	-0.001	0.001	-0.000
90/ 1	-2	13	-1	-0.001	-0.001	-0.000
91/ 1	-1	13	-12	-0.002	-0.001	-0.000
92/ 1	-1	14	-16	-0.000	-0.001	-0.000
93/ 1	-0	14	-18	-0.001	-0.001	-0.000
94/ 1	1	13	-15	-0.001	-0.001	-0.000
95/ 1	2	13	-10	0.002	-0.001	-0.000
96/ 1	3	13	-3	-0.000	-0.001	-0.000
97/ 1	2	12	-3	0.001	0.000	-0.000
98/ 1	2	12	-4	0.001	0.000	-0.000
99/ 1	1	13	-9	0.001	0.000	-0.000
100/ 1	0	13	-11	0.001	0.000	-0.000
101/ 1	-0	13	-13	0.000	-0.001	-0.000
102/ 1	-0	13	-12	-0.000	-0.001	-0.000
103/ 1	-1	13	-11	-0.001	-0.001	-0.001
104/ 1	-2	13	-6	-0.001	-0.000	0.002
105/ 1	-1	13	-5	-0.001	-0.000	-0.000
106/ 1	-2	25	-7	-0.001	0.000	-0.005
107/ 1	12	25	-9	0.000	0.000	-0.003



Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

App'd by:
5.1.2e

Date:
18/08/22

Ref.

Calculations

Output

Node/Case	UX (mm)	UY (mm)	UZ (mm)	RX (Rad)	RY (Rad)	RZ (Rad)
108/ 1	15	25	-3	0.000	0.000	0.001
109/ 1	2	25	-6	-0.001	0.000	0.001
110/ 1	2	25	-10	-0.001	0.000	-0.001
111/ 1	-2	17	-7	-0.001	0.000	0.002
112/ 1	-8	16	-11	-0.001	-0.001	-0.000
113/ 1	1	11	-9	0.000	0.000	-0.000
114/ 1	2	10	-6	0.000	0.000	-0.000
115/ 1	-2	32	-15	-0.002	0.000	-0.004
116/ 1	3	21	-8	-0.001	-0.000	-0.000
117/ 1	3	18	-13	-0.001	0.000	0.001
118/ 1	3	21	-16	0.002	0.001	0.000
119/ 1	3	21	-21	-0.001	0.005	-0.000
120/ 1	3	21	-13	0.000	0.002	-0.000
121/ 1	1	21	-22	0.001	0.005	-0.000
122/ 1	-2	21	-17	-0.002	0.001	-0.001
123/ 1	-0	21	-33	-0.000	-0.001	-0.000
124/ 1	2	21	-31	0.000	-0.001	-0.000
125/ 1	2	20	-31	-0.000	-0.000	-0.000
126/ 1	2	21	-32	0.000	-0.001	-0.000
127/ 1	3	20	-16	0.003	-0.002	-0.001
128/ 1	2	20	-26	-0.000	-0.002	0.000
129/ 1	3	20	-21	0.000	-0.001	-0.000
130/ 1	1	20	-27	0.000	-0.002	-0.000
131/ 1	-2	20	-16	-0.003	-0.002	-0.000
132/ 1	-2	17	-7	-0.000	0.000	0.008
133/ 1	3	20	-12	-0.000	0.001	-0.001
134/ 1	3	11	-6	-0.001	0.001	0.002
135/ 1	3	33	-5	-0.002	0.000	0.002
136/ 1	-1	102	-5	-0.004	0.000	0.005
137/ 1	-1	119	-6	-0.005	0.001	-0.000
138/ 1	4	41	-6	-0.002	0.001	0.000
139/ 1	4	37	-12	-0.002	0.001	-0.002
140/ 1	-1	99	-12	-0.004	0.000	-0.006
141/ 1	-1	30	-8	-0.001	0.000	-0.006
142/ 1	4	30	-12	-0.001	0.001	-0.001
143/ 1	3	20	-8	-0.000	0.001	0.008
145/ 1	6	21	-12	0.000	-0.000	-0.001
147/ 1	9	19	-8	-0.001	0.001	0.002
148/ 1	2	43	-15	-0.001	0.001	-0.000
149/ 1	-6	43	-10	-0.003	0.001	-0.001
150/ 1	6	42	-9	-0.003	0.001	-0.007
151/ 1	15	42	-9	-0.003	0.001	-0.001
152/ 1	9	42	-14	-0.003	0.001	-0.000
153/ 1	6	17	-16	0.000	0.002	-0.002
154/ 1	4	26	-69	0.004	-0.009	-0.004
155/ 1	17	27	-43	0.007	0.003	0.001
156/ 1	-5	26	-40	-0.007	0.003	0.001
157/ 1	7	25	-64	-0.004	-0.008	-0.003
158/ 1	9	19	-9	0.000	-0.000	0.002
159/ 1	13	20	-10	0.000	-0.000	-0.001
160/ 1	6	21	-12	0.000	-0.000	-0.001
161/ 1	-5	21	-11	-0.000	-0.000	-0.001



Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Part of Structure:
Boiler House and Turbine Pedestal support structures

Job Ref.:
C2002

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

App'd by:
5.1.2e

Date:
18/08/22

Ref.

Calculations

Output

Node/Case	UX (mm)	UY (mm)	UZ (mm)	RX (Rad)	RY (Rad)	RZ (Rad)
162/ 1	2	21	-8	-0.000	-0.000	0.005
163/ 1	3	141	-6	-0.003	0.000	0.008
164/ 1	9	68	-6	-0.004	0.000	0.004
165/ 1	10	70	-16	-0.004	0.000	-0.004
166/ 1	4	135	-15	-0.003	0.000	-0.008
167/ 1	5	31	-11	0.000	0.000	-0.008
168/ 1	11	35	-14	-0.001	0.000	-0.002
169/ 1	4	30	-11	0.000	-0.000	-0.008
170/ 1	25	32	-9	-0.000	0.001	0.002
171/ 1	11	36	-15	-0.001	-0.000	-0.003
172/ 1	1	23	-9	-0.000	-0.000	0.005
173/ 1	-8	22	-11	-0.000	-0.001	0.000
175/ 1	14	20	-9	-0.000	0.000	0.000
176/ 1	8	21	-9	-0.000	-0.000	0.003
177/ 1	0	23	-9	-0.000	-0.000	0.005
178/ 1	7	22	-10	-0.000	-0.000	0.003
179/ 1	8	68	-9	-0.004	-0.000	0.009
180/ 1	0	92	-8	-0.001	-0.000	0.015
181/ 1	0	171	-7	-0.003	-0.000	0.009
182/ 1	8	118	-7	-0.007	-0.000	0.006
183/ 1	8	114	-19	-0.006	-0.000	-0.006
184/ 1	1	162	-18	-0.003	-0.001	-0.010
185/ 1	1	94	-16	-0.001	-0.001	-0.015
186/ 1	8	77	-18	-0.003	-0.000	-0.008
187/ 1	8	43	-15	-0.001	-0.000	-0.004
188/ 1	1	29	-12	0.000	-0.001	-0.009
189/ 1	-1	24	-9	-0.000	-0.000	0.003
190/ 1	-6	24	-15	-0.000	-0.000	-0.001
191/ 1	6	24	-15	0.000	-0.000	-0.001
192/ 1	6	24	-10	-0.000	-0.000	0.002
193/ 1	-2	106	-16	0.002	0.000	-0.001
194/ 1	-2	105	-10	-0.004	0.001	-0.005
195/ 1	5	105	-9	-0.004	-0.000	-0.006
196/ 1	8	104	-10	-0.004	-0.000	-0.005
197/ 1	6	104	-14	0.000	0.000	-0.001
198/ 1	8	26	-17	0.002	0.001	-0.007
199/ 1	6	27	-22	0.000	0.002	0.002
200/ 1	1	27	-25	0.000	0.002	0.001
201/ 1	-2	27	-19	-0.002	0.001	-0.007
202/ 1	-2	24	-9	-0.000	-0.000	0.003
203/ 1	-2	24	-17	-0.002	-0.002	-0.001
204/ 1	5	24	-26	0.000	-0.002	-0.001
205/ 1	8	24	-17	0.002	-0.002	-0.000
206/ 1	6	24	-10	-0.000	-0.000	0.002
207/ 1	-2	24	-9	-0.000	-0.000	0.003
208/ 1	5	24	-10	-0.000	-0.000	0.002
209/ 1	5	183	-8	-0.008	0.000	0.007
210/ 1	-3	200	-7	-0.004	0.000	0.011
211/ 1	-4	187	-21	-0.003	-0.000	-0.012
212/ 1	4	172	-23	-0.007	-0.000	-0.007
213/ 1	4	43	-16	0.001	-0.001	-0.004
214/ 1	-4	32	-13	-0.001	-0.001	-0.008

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002		
	Part of Structure: Boiler House and Turbine Pedestal support structures						Sheet No./rev.:
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22			
Ref.	Calculations					Output	

Node/Case	UX (mm)	UY (mm)	UZ (mm)	RX (Rad)	RY (Rad)	RZ (Rad)
215/ 1	-4	26	-9	-0.001	-0.000	0.002
216/ 1	-9	25	-15	-0.001	0.001	-0.000
217/ 1	-0	24	-17	-0.000	0.000	-0.001
218/ 1	8	24	-15	0.001	-0.000	-0.000
219/ 1	4	23	-11	0.000	-0.000	0.002
220/ 1	6	213	-8	-0.009	0.000	0.007
221/ 1	-2	213	-8	-0.004	0.000	0.011
222/ 1	-5	199	-23	-0.003	-0.000	-0.012
223/ 1	4	199	-24	-0.008	-0.000	-0.007
224/ 1	2	37	-16	0.002	-0.001	-0.004
225/ 1	13	38	-28	-0.000	0.000	0.002
226/ 1	-7	38	-13	-0.002	-0.001	-0.008
227/ 1	-2	100	-17	0.003	0.001	-0.003
228/ 1	-1	93	-17	0.003	0.000	-0.004
229/ 1	-1	85	-17	0.004	0.000	-0.003
230/ 1	-1	76	-17	0.004	0.000	-0.003
231/ 1	-1	69	-17	0.004	-0.001	-0.003
232/ 1	-2	62	-17	-0.000	-0.001	-0.003
233/ 1	-3	54	-14	0.001	-0.001	-0.004
234/ 1	-4	50	-14	0.001	-0.001	-0.004
235/ 1	-5	39	-12	0.001	-0.001	-0.004
236/ 1	-6	36	-12	0.002	-0.001	-0.004
237/ 1	-6	25	-10	-0.000	-0.001	-0.005
238/ 1	-8	26	-10	-0.001	-0.001	-0.003
239/ 1	-2	83	-13	-0.006	0.001	-0.011
240/ 1	1	93	-13	-0.003	0.001	-0.009
241/ 1	1	71	-16	-0.003	0.001	-0.007
242/ 1	3	75	-16	-0.000	0.001	-0.007
243/ 1	3	60	-19	-0.001	0.001	-0.005
244/ 1	6	62	-19	0.000	0.001	-0.002
245/ 1	6	50	-21	-0.002	0.000	-0.006
246/ 1	8	53	-21	-0.001	0.000	-0.005
247/ 1	3	38	-18	-0.001	-0.002	-0.005
248/ 1	0	33	-13	0.003	0.000	-0.002
249/ 1	0	26	-15	0.000	0.000	-0.004
250/ 1	1	26	-15	-0.000	0.001	-0.002
251/ 1	5	83	-11	-0.006	0.001	-0.011
252/ 1	7	93	-11	-0.003	0.001	-0.009
253/ 1	7	71	-13	-0.003	0.001	-0.007
254/ 1	8	75	-13	-0.000	0.001	-0.007
255/ 1	9	61	-15	-0.001	0.001	-0.005
256/ 1	10	62	-15	0.001	0.001	-0.002
257/ 1	10	51	-16	-0.001	0.000	-0.005
258/ 1	11	51	-16	0.001	0.000	-0.005
259/ 1	10	39	-17	0.001	0.000	-0.004
260/ 1	11	36	-17	0.002	0.000	-0.003
261/ 1	11	26	-17	0.000	0.000	-0.005
262/ 1	11	25	-17	0.000	0.000	-0.002
263/ 1	8	83	-11	-0.006	0.001	-0.011
264/ 1	10	93	-11	-0.003	0.001	-0.009
265/ 1	10	71	-13	-0.003	0.001	-0.007
266/ 1	11	74	-13	0.000	0.001	-0.006



Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

App'd by:
5.1.2e

Date:
18/08/22

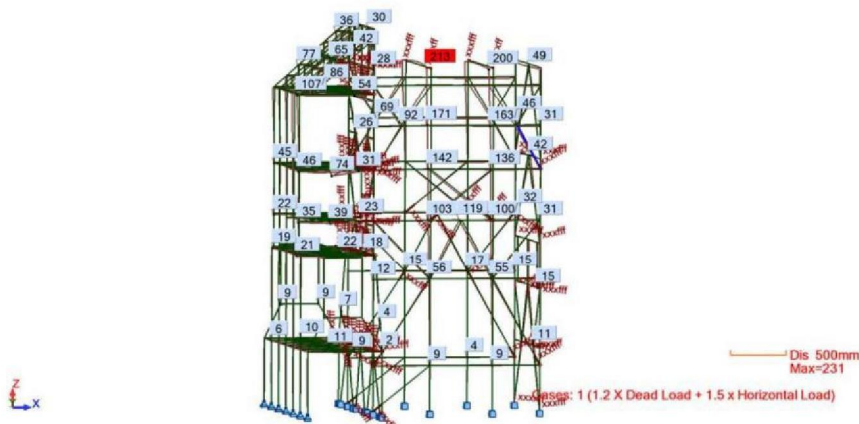
Ref.

Calculations

Output

Node/Case	UX (mm)	UY (mm)	UZ (mm)	RX (Rad)	RY (Rad)	RZ (Rad)
267/ 1	11	61	-14	-0.001	0.000	-0.004
268/ 1	12	62	-14	0.000	0.000	-0.001
269/ 1	12	51	-15	-0.001	0.000	-0.005
270/ 1	13	51	-15	0.001	0.000	-0.005
271/ 1	12	39	-15	0.001	0.000	-0.004
272/ 1	13	34	-15	0.004	0.000	-0.003
273/ 1	12	26	-15	0.000	0.000	-0.004
274/ 1	13	25	-16	0.001	-0.000	0.000
275/ 1	6	99	-15	0.003	0.001	-0.003
276/ 1	6	93	-15	0.003	0.000	-0.004
277/ 1	7	83	-16	0.003	0.000	-0.003
278/ 1	7	75	-16	0.004	0.000	-0.003
279/ 1	7	68	-16	0.004	-0.000	-0.003
280/ 1	6	62	-16	0.001	-0.000	-0.002
281/ 1	6	54	-15	0.002	-0.000	-0.004
282/ 1	5	50	-15	0.002	-0.001	-0.004
283/ 1	5	40	-13	0.002	-0.001	-0.004
284/ 1	4	34	-13	0.004	-0.001	-0.002
285/ 1	3	26	-11	0.000	-0.001	-0.004
286/ 1	2	25	-11	0.001	-0.001	0.000
290/ 1	-1	15	-14	-0.003	-0.000	0.000
291/ 1	0	20	-9	-0.001	-0.001	-0.000
293/ 1	8	22	-9	-0.001	0.001	-0.000
295/ 1	1	15	-13	0.001	0.000	-0.000
296/ 1	-2	55	-4	-0.003	0.000	0.003
301/ 1	2	4	-4	-0.000	-0.000	-0.000
311/ 1	-3	61	-17	0.004	-0.001	-0.003
312/ 1	-3	54	-14	0.001	-0.001	-0.003
314/ 1	13	25	-15	0.001	-0.000	0.000
316/ 1	-1	5	-7	-0.000	-0.001	-0.000
317/ 1	-1	5	-7	-0.000	0.001	-0.000
318/ 1	-2	5	-9	0.000	-0.001	-0.000
319/ 1	-2	5	-7	-0.000	0.001	-0.000
320/ 1	-1	4	-9	-0.000	-0.001	-0.000
321/ 1	0	5	-8	-0.000	0.001	-0.000
322/ 1	1	4	-8	0.000	-0.000	-0.000
323/ 1	-1	5	-6	-0.000	0.001	-0.000
324/ 1	-2	5	-8	-0.000	0.001	-0.000
325/ 1	-1	5	-8	-0.000	0.001	-0.000
326/ 1	1	5	-6	0.000	0.001	-0.000
327/ 1	-1	4	-9	-0.000	-0.001	-0.000
328/ 1	-2	4	-8	0.000	-0.001	-0.000
329/ 1	0	4	-9	-0.000	-0.001	-0.000

View - Deformation, Cases: 1 (1.2 X Dead Load + 1.5 x Horizontal Load)



 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002		
	Part of Structure: Boiler House and Turbine Pedestal support structures						Sheet No./rev.:
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22			
Ref.	Calculations					Output	

forces: values

- Case: 1 (1.2 X Dead Load + 1.5 x Horizontal Load)

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
1/ 1/ 1	1461.27	-1.06	-43.05	0.0	0.0	0.00
1/ 41/ 1	1386.99	-1.06	-43.05	0.0	-559.70	13.74
6/ 2/ 1	3686.90	-12.12	-39.13	0.0	-0.00	0.00
6/ 42/ 1	3612.61	-12.12	-39.13	0.0	-508.71	157.52
7/ 42/ 1	2799.86	39.57	-79.69	-0.00	722.87	166.32
7/ 76/ 1	2688.43	39.57	-79.69	-0.00	-831.04	-605.25
9/ 290/ 1	856.51	-37.50	-11.77	0.96	0.08	134.04
9/ 148/ 1	728.14	34.18	-41.07	-0.61	-432.68	37.69
10/ 148/ 1	147.59	-6.13	-18.24	0.04	172.64	-44.28
10/ 193/ 1	112.79	-6.13	-18.24	0.04	-115.59	52.54
11/ 3/ 1	4424.81	-0.84	-40.06	0.0	0.00	-0.00
11/ 43/ 1	4350.52	-0.84	-40.06	0.0	-520.77	10.96
12/ 43/ 1	3555.22	-12.12	-77.42	-0.00	697.60	-100.33
12/ 78/ 1	3443.79	-12.12	-77.42	-0.00	-812.16	135.97
13/ 78/ 1	1260.82	0.79	-106.68	0.06	1037.84	-306.02
13/ 291/ 1	1220.82	0.79	-106.68	0.06	291.06	-311.58
14/ 291/ 1	1220.82	0.79	-106.68	0.06	291.06	-311.58
14/ 149/ 1	1160.82	0.79	-106.68	0.06	-829.11	-319.92
15/ 149/ 1	216.16	-43.68	-36.36	0.54	290.13	-452.76
15/ 194/ 1	125.87	-43.68	-36.36	0.54	-284.44	237.45
16/ 4/ 1	4134.14	-4.05	-39.02	0.0	-0.00	0.00
16/ 44/ 1	4059.85	-4.05	-39.02	0.0	-507.22	52.64
17/ 44/ 1	3229.94	-3.13	-80.71	-0.00	705.16	-58.31
17/ 79/ 1	3118.52	-3.13	-80.71	-0.00	-868.75	2.72
18/ 79/ 1	1056.64	10.23	-149.10	-0.01	1047.53	-161.48
18/ 116/ 1	1016.64	10.23	-149.10	-0.01	3.86	-233.06
19/ 116/ 1	965.30	11.04	-88.66	1.28	177.44	-233.10
19/ 150/ 1	905.30	11.04	-88.66	1.28	-753.54	-349.05
20/ 150/ 1	232.58	-47.34	-72.42	-0.22	758.07	-511.54
20/ 195/ 1	142.30	-47.34	-72.42	-0.22	-386.11	236.44
21/ 5/ 1	4322.27	-5.84	-37.23	0.0	0.0	0.00
21/ 45/ 1	4247.99	-5.84	-37.23	0.0	-483.93	75.93
22/ 45/ 1	3453.35	1.64	-75.52	-0.00	668.89	-35.27
22/ 80/ 1	3341.93	1.64	-75.52	-0.00	-803.82	-67.26
23/ 80/ 1	1269.34	13.90	-39.16	0.06	415.72	-93.99
23/ 293/ 1	1229.34	13.90	-39.16	0.06	141.60	-191.27
24/ 293/ 1	1229.34	13.90	-39.16	0.06	141.60	-191.27
24/ 151/ 1	1169.34	13.90	-39.16	0.06	-269.58	-337.18
25/ 151/ 1	250.76	-47.62	-71.55	0.51	727.21	-551.19
25/ 196/ 1	160.48	-47.62	-71.55	0.51	-403.29	201.17
26/ 6/ 1	3836.18	7.48	-36.32	0.0	0.0	0.0
26/ 46/ 1	3761.90	7.48	-36.32	0.0	-472.17	-97.19
27/ 46/ 1	2962.02	-57.74	-70.38	0.00	651.84	-340.94
27/ 82/ 1	2850.59	-57.74	-70.38	0.00	-720.51	784.95
28/ 295/ 1	935.71	-48.94	-10.06	-0.34	0.14	-790.94
28/ 117/ 1	895.71	-48.94	-10.06	-0.34	-70.28	-448.38
29/ 117/ 1	867.67	-47.89	-38.50	0.24	5.18	-448.47
29/ 152/ 1	807.67	-47.89	-38.50	0.24	-399.07	54.42
30/ 152/ 1	169.63	-3.86	-19.17	0.03	183.72	-25.49

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152		Project: Gelderland Central Power Station				Job Ref.: C2002	
		Part of Structure: Boiler House and Turbine Pedestal support structures				Sheet No./rev.:	
		Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output	

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
30/ 197/ 1	134.84	-3.86	-19.17	0.03	-119.20	35.54
31/ 7/ 1	1498.33	-5.69	-42.26	0.0	0.0	0.0
31/ 47/ 1	1424.04	-5.69	-42.26	0.0	-549.32	74.01
32/ 41/ 1	698.02	1.87	-47.43	0.16	408.54	13.21
32/ 59/ 1	661.53	1.87	-65.15	0.16	-29.50	-1.33
33/ 59/ 1	547.41	0.92	-31.95	-0.10	92.38	-1.26
33/ 89/ 1	482.25	0.92	-31.95	-0.10	-306.99	-12.74
34/ 32/ 1	694.25	0.15	17.64	-0.12	-18.17	16.77
34/ 62/ 1	657.76	0.15	-4.78	-0.12	34.65	15.55
35/ 62/ 1	552.48	0.80	32.68	0.09	-101.77	-13.32
35/ 90/ 1	487.31	0.80	32.68	0.09	306.70	-23.35
36/ 47/ 1	705.96	-7.85	-45.15	0.09	401.94	-65.47
36/ 60/ 1	669.47	-7.85	-62.87	0.09	-18.37	-4.37
37/ 60/ 1	561.39	-7.66	-29.30	-0.01	76.79	-3.97
37/ 83/ 1	496.22	-7.66	-29.30	-0.01	-289.47	91.73
39/ 36/ 1	717.18	6.26	22.59	-0.08	-55.21	52.10
39/ 61/ 1	680.68	6.26	0.17	-0.08	38.25	0.67
40/ 61/ 1	568.77	-6.46	36.39	0.03	-125.30	-0.60
40/ 96/ 1	503.60	-6.46	36.39	0.03	329.60	80.09
42/ 17/ 1	1557.96	-47.01	-8.10	-13.87	123.46	-623.78
42/ 32/ 1	1355.33	-47.01	-8.10	-13.87	18.19	-12.65
44/ 15/ 1	8055.38	-110.81	-1.93	-29.73	136.59	-915.63
44/ 33/ 1	6679.10	-123.52	-57.45	31.74	-9.83	570.83
45/ 33/ 1	8051.10	-16.60	3.82	0.0	0.0	0.0
45/ 104/ 1	7754.12	435.64	22.04	1670.72	-40.13	-1395.10
46/ 104/ 1	3892.74	14.51	15.16	8.16	-86.87	82.00
46/ 111/ 1	3817.38	14.51	15.16	8.16	4.07	-5.09
47/ 111/ 1	3813.31	-183.05	15.62	0.0	0.0	0.0
47/ 143/ 1	4159.97	25.20	20.51	0.0	-0.00	-0.00
48/ 143/ 1	4159.97	25.20	20.51	0.0	0.0	0.0
48/ 172/ 1	2099.39	28.58	18.84	-26.81	20.02	127.18
49/ 172/ 1	2095.21	-187.50	7.13	-92.36	16.51	133.06
49/ 189/ 1	1956.90	279.82	-0.57	1371.24	141.15	-834.14
50/ 189/ 1	1698.67	248.07	-28.11	889.78	106.11	-184.72
50/ 215/ 1	1301.52	244.91	37.27	512.41	36.01	-1061.37
51/ 10/ 1	5787.95	-239.95	30.51	32.84	-147.10	-1722.90
51/ 35/ 1	4670.11	-243.00	-55.05	18.13	-11.90	1407.42
52/ 35/ 1	5967.34	-153.91	-1.47	0.0	0.0	0.0
52/ 98/ 1	5668.36	-188.03	54.97	-12.68	47.17	3396.52
53/ 98/ 1	8002.89	-270.43	0.60	-2.75	-3.86	-1614.92
53/ 114/ 1	7927.53	-270.43	0.60	-2.75	-0.23	7.66
54/ 114/ 1	7923.16	-0.75	-0.25	0.0	0.0	0.0
54/ 147/ 1	8372.72	0.11	26.08	0.0	-0.00	0.00
55/ 147/ 1	8372.72	0.11	26.08	0.0	0.0	0.0
55/ 176/ 1	3389.11	-27.30	-8.12	-298.02	94.57	-445.32
56/ 176/ 1	3383.10	-273.74	-1.47	-336.58	97.25	-459.80
56/ 192/ 1	3249.09	-75.25	-18.28	716.34	82.27	644.24
57/ 192/ 1	1875.11	-514.57	12.15	284.42	126.54	-111.14
57/ 219/ 1	1582.05	-176.25	-22.75	418.85	-53.23	1169.53
58/ 8/ 1	7810.49	-271.79	25.61	56.76	-277.62	-2062.27
58/ 36/ 1	7607.86	-271.79	25.61	56.76	55.24	1471.03
60/ 18/ 1	3868.59	-65.05	37.32	-316.39	-147.06	-1467.33

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002		
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	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22			
Ref.	Calculations					Output	

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
60/ 27/ 1	3766.96	-65.05	37.32	-316.39	203.76	-855.89
61/ 27/ 1	3923.07	-37.92	-25.94	-440.17	209.51	-924.23
61/ 296/ 1	3326.35	-131.69	-37.25	-742.57	116.60	-1193.23
62/ 296/ 1	3326.35	-131.69	-37.25	-742.57	116.60	-1193.23
62/ 136/ 1	3194.76	-131.69	-37.25	-742.57	-336.71	409.39
63/ 136/ 1	2801.21	17.52	160.64	-888.91	-794.34	409.12
63/ 163/ 1	2687.68	17.52	160.64	-888.91	892.36	225.15
64/ 163/ 1	2483.45	46.11	-146.09	-742.32	1088.05	375.96
64/ 181/ 1	2386.14	46.11	-146.09	-742.32	-226.76	-39.04
65/ 181/ 1	2273.23	66.18	-241.80	-573.21	557.03	-39.73
65/ 210/ 1	2181.33	66.18	-241.80	-573.21	-1498.31	-602.30
66/ 210/ 1	2695.23	-123.29	-0.00	0.0	0.00	-431.53
66/ 221/ 1	2657.38	-123.29	-0.00	0.0	-0.00	0.00
67/ 19/ 1	4204.89	-2.88	58.79	-23.60	-314.77	-262.34
67/ 26/ 1	4103.26	-2.88	58.79	-23.60	237.87	-235.30
68/ 26/ 1	4068.30	0.59	-22.42	-65.15	170.53	-244.96
68/ 70/ 1	3874.76	0.59	-22.42	-65.15	-230.74	-255.54
69/ 70/ 1	3425.46	51.67	-27.78	-534.64	45.88	-377.00
69/ 135/ 1	3293.55	51.67	-27.78	-534.64	-292.98	-1007.36
70/ 135/ 1	2995.99	57.00	172.82	-678.54	-844.56	-1007.54
70/ 164/ 1	2882.46	57.00	172.82	-678.54	970.10	-1606.05
71/ 164/ 1	2793.81	20.65	-132.67	-787.98	1064.62	-1555.14
71/ 182/ 1	2696.50	20.65	-132.67	-787.98	-129.41	-1741.04
72/ 182/ 1	2568.41	-77.08	-234.87	-693.15	570.97	-1742.11
72/ 209/ 1	2476.51	-77.08	-234.87	-693.15	-1425.45	-1086.96
73/ 209/ 1	2695.23	-286.71	0.00	0.0	-0.00	-1003.47
73/ 220/ 1	2657.38	-286.71	0.00	0.0	0.00	0.00
74/ 21/ 1	8007.11	-78.82	79.09	319.65	-365.04	-1552.29
74/ 28/ 1	7905.47	-78.82	79.09	319.65	378.43	-811.38
75/ 28/ 1	7869.55	-30.10	-42.32	476.41	373.09	-811.63
75/ 72/ 1	7676.01	-30.10	-42.32	476.41	-384.46	-272.82
76/ 72/ 1	9690.68	-111.74	-44.80	834.49	42.71	-993.42
76/ 140/ 1	9558.77	-111.74	-44.80	834.49	-503.90	369.75
77/ 140/ 1	9795.36	1.40	155.10	921.92	-569.38	369.53
77/ 166/ 1	9681.83	1.40	155.10	921.92	1059.13	354.87
78/ 166/ 1	10077.31	60.11	-120.52	835.68	975.92	507.82
78/ 184/ 1	9980.00	60.11	-120.52	835.68	-108.79	-33.19
79/ 184/ 1	9988.71	57.20	-183.59	558.68	543.98	-33.77
79/ 211/ 1	9896.80	57.20	-183.59	558.68	-1016.58	-519.98
80/ 211/ 1	12355.23	-108.95	-0.00	0.0	0.0	-381.31
80/ 222/ 1	12317.38	-108.95	-0.00	0.0	-0.00	-0.00
81/ 20/ 1	8774.87	4.82	108.39	17.52	-575.82	-211.88
81/ 29/ 1	8673.24	4.82	108.39	17.52	443.02	-257.15
82/ 29/ 1	8635.59	11.36	-43.51	46.43	376.06	-257.15
82/ 73/ 1	8442.05	11.36	-43.51	46.43	-402.82	-460.50
83/ 73/ 1	10298.58	25.69	-33.32	411.38	-41.44	-410.97
83/ 139/ 1	10166.67	25.69	-33.32	411.38	-447.94	-724.40
84/ 139/ 1	10264.09	57.63	144.59	734.00	-491.41	-724.70
84/ 165/ 1	10150.56	57.63	144.59	734.00	1026.83	-1329.86
85/ 165/ 1	10442.84	24.31	-124.07	889.59	983.79	-1271.07
85/ 183/ 1	10345.53	24.31	-124.07	889.59	-132.85	-1489.85
86/ 183/ 1	10329.67	-60.13	-192.17	752.23	579.67	-1490.66

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures				Sheet No./rev.:	
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
86/ 212/ 1	10237.77	-60.13	-192.17	752.23	-1053.81	-979.55
87/ 212/ 1	12355.23	-266.05	-0.00	0.0	0.00	-931.19
87/ 223/ 1	12317.38	-266.05	-0.00	0.0	-0.00	-0.00
88/ 22/ 1	9631.45	-265.76	152.42	969.40	-772.09	-1997.16
88/ 40/ 1	7812.50	-290.09	-53.19	1112.68	386.03	1545.53
89/ 40/ 1	7823.80	460.46	-46.57	1217.87	386.01	1359.23
89/ 63/ 1	7633.64	460.46	-46.57	1217.87	-182.11	-4258.42
90/ 63/ 1	9001.89	-1126.99	-33.97	1465.01	-181.79	-4555.11
90/ 106/ 1	8721.69	-770.62	5.70	845.97	-545.20	3834.47
91/ 106/ 1	10146.86	-25.88	20.48	1175.42	-545.14	2051.21
91/ 169/ 1	7508.54	407.29	-219.40	276.78	1074.55	-320.92
92/ 169/ 1	4099.90	37.45	-172.32	1045.22	1074.80	-241.25
92/ 226/ 1	3563.06	578.94	-56.90	-840.01	-0.17	-6389.22
93/ 23/ 1	14097.59	-130.36	201.69	32.57	-1129.78	-1236.11
93/ 301/ 1	11915.01	-136.29	-57.06	62.23	453.78	479.94
94/ 301/ 1	11915.60	253.59	-63.68	126.69	453.83	452.02
94/ 67/ 1	11725.44	253.59	-63.68	126.69	-323.12	-2641.79
95/ 67/ 1	11816.43	-707.19	-76.31	248.97	-323.03	-3797.48
95/ 110/ 1	11581.34	-731.52	25.00	414.30	-452.99	2966.68
96/ 110/ 1	10512.44	318.83	10.22	608.31	-453.18	3209.55
96/ 171/ 1	8345.01	270.38	-139.17	563.45	1158.13	-1890.64
97/ 171/ 1	4006.34	-588.13	-186.24	1110.36	1158.36	-2256.82
97/ 224/ 1	3541.58	-235.16	56.89	-645.59	-0.12	6083.52
98/ 41/ 1	-305.27	10.14	772.64	-7.17	-968.24	-3.09
98/ 32/ 1	-349.24	15.70	-648.11	0.0	0.00	-0.00
99/ 42/ 1	-40.70	13.26	806.03	7.14	-1231.58	6.17
99/ 55/ 1	-58.46	15.56	-643.17	0.0	0.00	0.00
100/ 43/ 1	-37.07	11.07	790.94	-35.55	-1218.37	5.60
100/ 53/ 1	-13.48	13.64	-634.24	0.0	0.00	-0.00
101/ 44/ 1	-41.26	7.14	813.80	-29.92	-1212.38	2.74
101/ 34/ 1	3.72	9.24	-651.75	0.0	0.00	0.0
102/ 45/ 1	-38.04	2.39	790.75	-21.46	-1152.82	-0.07
102/ 51/ 1	-17.65	3.81	-642.42	0.0	0.00	0.0
103/ 46/ 1	-34.11	0.21	794.51	-66.09	-1124.00	-0.71
103/ 49/ 1	-46.18	-0.84	-647.90	0.0	0.00	0.00
104/ 47/ 1	-306.87	6.41	779.21	-39.65	-951.27	28.06
104/ 36/ 1	-322.05	-6.47	-651.43	0.0	-0.00	-0.00
105/ 41/ 1	21.93	-0.70	7.20	0.00	-5.25	-2.83
105/ 42/ 1	21.93	-0.70	-5.00	0.00	3.53	2.76
106/ 42/ 1	-43.02	-0.85	1.73	0.00	1.87	-3.41
106/ 43/ 1	-43.02	-0.85	-10.47	0.00	-33.11	3.37
107/ 43/ 1	-42.81	-0.56	-6.10	0.00	42.62	-2.23
107/ 44/ 1	-42.81	-0.56	-18.30	0.00	-55.00	2.23
108/ 44/ 1	-50.87	-0.12	-2.19	-0.00	26.03	-0.51
108/ 45/ 1	-50.87	-0.12	-14.39	-0.00	-40.30	0.48
109/ 45/ 1	-60.75	0.13	-10.51	-0.00	49.43	0.55
109/ 46/ 1	-60.75	0.13	-22.71	-0.00	-83.45	-0.52
110/ 46/ 1	4.25	0.08	-17.34	-0.01	94.21	0.19
110/ 47/ 1	4.25	0.08	-29.54	-0.01	-93.30	-0.47
111/ 32/ 1	-147.47	-6.87	81.89	0.01	1.70	-22.54
111/ 55/ 1	-147.47	-6.87	25.91	0.01	432.90	32.44
112/ 55/ 1	-101.90	51.59	-617.26	0.01	432.90	32.44

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002		
	Part of Structure: Boiler House and Turbine Pedestal support structures						Sheet No./rev.:
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22			
Ref.	Calculations					Output	

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
112/ 33/ 1	-101.90	51.59	-631.26	0.01	-815.62	-70.73
113/ 33/ 1	-645.83	-10.46	314.84	0.01	-245.46	-39.87
113/ 53/ 1	-645.83	-10.46	272.86	0.01	1517.65	22.90
114/ 53/ 1	-632.19	3.02	-361.38	0.01	1517.65	22.90
114/ 34/ 1	-632.19	3.02	-417.36	0.01	-1597.30	-1.24
115/ 34/ 1	-1091.14	-3.10	326.29	-0.03	-1484.66	1.75
115/ 51/ 1	-1091.14	-3.10	270.31	-0.03	901.76	26.56
116/ 51/ 1	-1087.33	14.54	-372.10	-0.03	901.76	26.56
116/ 35/ 1	-1087.33	14.54	-414.09	-0.03	-1456.81	-60.71
117/ 35/ 1	-1961.51	-37.79	399.92	-0.04	18.39	-38.05
117/ 49/ 1	-1961.51	-37.79	385.92	-0.04	804.23	37.54
118/ 49/ 1	-1962.35	8.39	-261.97	-0.04	804.23	37.54
118/ 36/ 1	-1962.35	8.39	-317.95	-0.04	-1515.46	-29.56
119/ 59/ 1	315.68	0.95	19.17	0.00	-121.88	-0.34
119/ 62/ 1	315.68	0.95	-5.48	0.00	-67.12	-7.95
120/ 60/ 1	319.75	-0.20	13.34	-0.01	-95.16	-1.82
120/ 61/ 1	319.75	-0.20	-11.31	-0.01	-87.05	-0.25
121/ 89/ 1	31.53	-0.04	480.12	0.02	-302.18	-0.11
121/ 90/ 1	31.53	-0.04	-480.52	0.02	-303.79	0.23
122/ 76/ 1	71.77	-10.32	1980.78	-149.93	-831.25	9.93
122/ 105/ 1	-478.64	-36.41	-1853.45	0.0	-0.00	0.0
123/ 78/ 1	-28.20	22.36	2032.43	-11.08	-1850.16	3.01
123/ 103/ 1	165.97	21.97	-1791.55	0.0	-0.00	0.00
124/ 79/ 1	-68.08	-6.82	2054.51	-15.80	-1916.29	-0.44
124/ 101/ 1	-28.33	-11.84	-1796.96	0.0	-0.00	-0.00
125/ 80/ 1	36.75	-14.50	1989.95	-38.34	-1219.64	-1.74
125/ 99/ 1	1.73	-17.92	-1830.17	0.0	-0.00	0.0
126/ 82/ 1	64.23	3.21	1955.55	34.54	-720.66	-6.68
126/ 97/ 1	4.86	10.33	-1850.22	0.0	-0.00	-0.00
127/ 83/ 1	30.23	0.03	475.32	-0.00	-282.10	0.08
127/ 96/ 1	30.23	0.03	-485.33	-0.00	-322.14	-0.15
128/ 76/ 1	149.89	-7.92	707.65	0.21	-755.19	-9.93
128/ 78/ 1	34.06	-1.16	-160.07	-0.17	-384.86	2.62
129/ 78/ 1	-1.21	-0.11	-9.53	-0.01	46.05	-0.46
129/ 79/ 1	-1.21	-0.11	-21.73	-0.01	-79.00	0.40
130/ 79/ 1	-7.74	0.20	-14.36	0.00	69.40	0.85
130/ 80/ 1	-7.74	0.20	-26.56	0.00	-94.26	-0.73
131/ 80/ 1	-5.60	0.59	56.08	0.10	-105.87	0.95
131/ 82/ 1	60.95	6.14	-895.04	-0.15	-819.49	-6.68
132/ 89/ 1	0.53	-0.05	-2.14	-0.01	-7.90	-0.15
132/ 88/ 1	0.53	-0.05	-14.34	-0.01	-73.82	0.26
133/ 84/ 1	8.58	-0.01	-3.78	-0.00	-5.27	-0.04
133/ 83/ 1	8.58	-0.01	-15.98	-0.00	-84.34	0.04
134/ 90/ 1	-0.24	0.17	2.91	0.00	-20.46	0.40
134/ 91/ 1	-0.24	0.17	-9.28	0.00	-45.94	-0.97
135/ 95/ 1	0.32	-0.06	-1.26	-0.01	-13.73	-0.33
135/ 96/ 1	0.32	-0.06	-13.46	-0.01	-72.62	0.14
136/ 105/ 1	-133.68	478.72	-2006.30	0.01	446.94	2.04
136/ 104/ 1	-133.68	478.72	-2027.98	0.01	-3587.33	-955.40
137/ 104/ 1	48.41	127.24	1511.94	0.59	-5051.79	596.11
137/ 103/ 1	48.41	127.24	1446.89	0.59	3824.71	-167.30
138/ 103/ 1	70.38	-38.73	-344.66	0.59	3824.71	-167.30

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures				Sheet No./rev.:	
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
138/ 101/ 1	65.60	-32.75	354.37	-0.54	5267.67	99.93
139/ 101/ 1	1839.78	-1.83	-832.62	-0.38	5265.05	-8.72
139/ 99/ 1	1856.29	-0.75	1188.24	-0.01	2948.45	-3.05
140/ 99/ 1	1838.38	-2.48	-641.93	-0.01	2948.45	-3.05
140/ 98/ 1	1838.38	-2.48	-706.98	-0.01	-1098.28	11.80
141/ 98/ 1	2578.86	4.82	-3551.81	0.03	3942.04	9.51
141/ 97/ 1	2578.86	4.82	-3573.49	0.03	-3183.26	-0.12
142/ 148/ 1	-91.59	1.27	610.60	0.0	-601.41	20.01
142/ 162/ 1	-91.59	1.27	-683.99	0.0	-0.00	-0.00
143/ 152/ 1	117.11	1.07	609.11	0.0	-577.91	16.88
143/ 158/ 1	117.11	1.07	-685.49	0.0	-0.00	-0.00
144/ 149/ 1	71.82	2.44	925.37	-0.00	-1121.49	38.45
144/ 161/ 1	71.82	2.44	-680.79	0.0	0.0	0.00
145/ 151/ 1	-31.43	2.36	917.57	0.00	-998.80	37.11
145/ 159/ 1	-31.43	2.36	-688.59	0.0	0.0	0.00
146/ 150/ 1	15.37	93.44	663.19	-0.33	-1511.62	77.94
146/ 160/ 1	30.45	14.02	-445.73	0.0	-0.00	0.00
147/ 148/ 1	100.31	-7.60	-32.16	0.01	86.86	-21.40
147/ 149/ 1	100.31	-7.60	-37.38	0.01	-121.75	24.19
148/ 149/ 1	137.79	-6.40	-18.08	-0.01	82.38	-14.73
148/ 150/ 1	137.79	-6.40	-25.04	-0.01	-90.12	36.48
149/ 150/ 1	102.73	-7.28	-15.51	0.00	72.04	-39.96
149/ 151/ 1	102.73	-7.28	-22.47	0.00	-79.90	18.26
150/ 151/ 1	159.89	-6.10	-21.46	-0.00	70.63	-19.30
150/ 152/ 1	159.89	-6.10	-26.68	-0.00	-73.81	17.31
156/ 193/ 1	219.49	-14.38	-23.81	-0.01	42.10	-33.97
156/ 194/ 1	219.49	-14.38	-29.03	-0.01	-116.41	52.34
157/ 194/ 1	152.12	-11.27	-25.12	0.01	109.38	-44.84
157/ 195/ 1	152.12	-11.27	-32.08	0.01	-119.41	45.35
158/ 195/ 1	81.89	-11.99	-24.48	0.00	106.48	-48.58
158/ 196/ 1	81.89	-11.99	-31.44	0.00	-117.22	47.32
159/ 196/ 1	9.32	-15.56	-12.71	-0.00	70.62	-55.37
159/ 197/ 1	9.32	-15.56	-17.94	-0.00	-21.33	37.99
160/ 202/ 1	214.53	225.45	128.22	0.69	-612.20	1290.75
160/ 203/ 1	214.53	225.45	96.94	0.69	63.29	-61.94
161/ 203/ 1	159.08	-1.28	56.47	-0.04	63.67	-62.06
161/ 204/ 1	159.08	-1.28	14.76	-0.04	348.60	-51.86
162/ 204/ 1	91.40	-4.84	-20.03	-0.01	348.57	-52.47
162/ 205/ 1	91.40	-4.84	-61.74	-0.01	21.46	-13.74
163/ 205/ 1	69.37	127.01	-98.12	-0.63	21.14	-14.15
163/ 206/ 1	69.37	127.01	-129.40	-0.63	-661.42	-776.23
164/ 189/ 1	130.47	30.10	128.13	-0.01	-625.55	372.49
164/ 190/ 1	130.47	30.10	76.00	-0.01	395.10	71.53
165/ 190/ 1	-788.25	37.40	9.45	-0.04	345.82	168.29
165/ 191/ 1	-788.25	37.40	-32.26	-0.04	254.60	-130.88
166/ 191/ 1	665.40	30.13	-86.55	0.04	341.89	-40.60
166/ 192/ 1	665.40	30.13	-138.69	0.04	-784.32	-341.89
167/ 215/ 1	1474.00	30.04	482.68	-0.40	-1032.63	343.85
167/ 216/ 1	1474.00	30.04	-58.60	-0.40	239.59	163.59
168/ 216/ 1	1289.39	20.07	261.05	0.20	221.71	154.44
168/ 217/ 1	1289.39	20.07	-460.66	0.20	-576.77	-6.14
169/ 217/ 1	1133.78	17.57	459.63	0.06	-573.72	-9.07

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	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
169/ 218/ 1	1133.78	17.57	-262.08	0.06	216.50	-149.65
170/ 218/ 1	1302.24	15.84	39.49	0.06	234.90	-153.61
170/ 219/ 1	1302.24	15.84	-501.79	0.06	-1152.02	-248.65
171/ 24/ 1	-796.34	-5.86	30.06	0.23	-78.54	-61.47
171/ 27/ 1	-796.34	-5.86	-24.26	0.23	-43.76	8.89
172/ 27/ 1	-534.51	-0.74	38.63	0.00	-125.86	45.72
172/ 28/ 1	-534.51	-0.74	-21.12	0.00	-10.26	55.47
173/ 28/ 1	-655.92	-24.46	14.81	-0.24	-4.92	-101.29
173/ 31/ 1	-655.92	-24.46	-30.45	-0.24	-83.13	143.28
174/ 25/ 1	-647.44	3.05	25.15	0.00	-46.57	14.70
174/ 26/ 1	-647.44	3.05	-29.16	0.00	-70.62	-21.91
175/ 26/ 1	-648.39	0.61	32.49	-0.00	-86.01	7.31
175/ 29/ 1	-648.39	0.61	-27.26	-0.00	-51.48	-0.76
176/ 29/ 1	-800.29	-5.93	10.39	0.01	15.48	-29.67
176/ 30/ 1	-800.29	-5.93	-34.87	0.01	-106.89	29.66
177/ 68/ 1	18.22	-282.24	-6.96	632.80	209.32	-1670.72
177/ 71/ 1	18.22	-282.24	-124.36	632.80	-578.60	1716.17
178/ 71/ 1	916.80	-8.17	218.93	-18.33	-1151.49	1812.88
178/ 72/ 1	916.80	-8.17	89.79	-18.33	886.12	1920.72
179/ 72/ 1	-39.68	236.37	-35.85	-397.34	513.95	1744.64
179/ 75/ 1	-39.68	236.37	-133.68	-397.34	-333.69	-619.04
180/ 69/ 1	56.44	34.12	-4.96	217.84	217.65	12.68
180/ 70/ 1	56.44	34.12	-122.36	217.84	-546.24	-396.74
181/ 70/ 1	1018.47	-13.86	173.55	57.96	-857.85	107.35
181/ 73/ 1	1018.47	-13.86	44.41	57.96	580.64	290.25
182/ 73/ 1	-101.30	-24.32	9.26	61.01	244.39	-77.91
182/ 74/ 1	-101.30	-24.32	-88.57	61.01	-152.19	165.34
183/ 132/ 1	-476.30	-24.14	-12.83	0.57	201.96	-63.26
183/ 136/ 1	-476.30	-24.14	-67.15	0.57	-277.91	226.42
184/ 136/ 1	-745.69	6.28	-58.51	0.30	179.71	372.76
184/ 140/ 1	-254.27	-3.77	93.14	-0.37	354.75	364.86
185/ 140/ 1	-160.64	52.52	-69.62	-0.59	420.24	277.43
185/ 141/ 1	-160.64	52.52	-114.88	-0.59	-502.24	-247.72
186/ 134/ 1	-548.49	1.85	-18.35	0.22	237.04	-0.00
186/ 135/ 1	-548.49	1.85	-72.67	0.22	-309.07	-22.20
187/ 135/ 1	-704.81	2.17	-72.17	0.04	242.51	121.70
187/ 139/ 1	-499.96	-6.11	90.55	-0.03	327.02	141.31
188/ 139/ 1	-269.82	-33.13	-59.23	-0.32	370.49	-181.32
188/ 142/ 1	-269.82	-33.13	-104.49	-0.32	-448.10	149.99
189/ 162/ 1	-638.96	-138.63	16.76	0.48	-26.18	-944.32
189/ 163/ 1	-638.96	-138.63	-37.56	0.48	-150.97	719.22
190/ 166/ 1	-647.75	130.03	-32.26	-0.65	239.28	617.21
190/ 167/ 1	-647.75	130.03	-77.52	-0.65	-309.60	-683.07
191/ 158/ 1	-321.44	-30.94	2.92	0.70	61.78	-241.83
191/ 164/ 1	-321.44	-30.94	-51.40	0.70	-229.10	129.49
192/ 165/ 1	-590.91	28.15	-20.14	-0.65	177.21	86.68
192/ 168/ 1	-590.91	28.15	-65.40	-0.65	-250.51	-194.84
193/ 163/ 1	-839.41	3.37	62.39	-0.04	-286.95	382.38
193/ 166/ 1	-839.41	3.37	8.77	-0.04	182.66	337.92
194/ 164/ 1	-679.16	0.48	59.15	-0.05	-265.28	173.99
194/ 165/ 1	-679.16	0.48	5.53	-0.05	161.63	167.60
195/ 177/ 1	-7.71	-252.31	40.34	0.37	-109.07	-1463.59

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	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations				Output	

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
195/ 181/ 1	-190.22	-165.95	10.63	0.63	107.98	861.68
196/ 181/ 1	-285.94	8.98	123.54	-0.06	-675.81	692.57
196/ 184/ 1	-285.94	8.98	63.79	-0.06	560.59	574.05
197/ 184/ 1	-349.01	181.89	55.09	-0.64	-92.18	851.04
197/ 188/ 1	-302.56	257.91	-65.58	-0.48	-164.79	-1180.74
198/ 178/ 1	-16.81	-198.49	36.04	1.01	-83.90	-1052.91
198/ 182/ 1	-75.62	-88.85	-6.80	0.96	35.11	524.58
199/ 182/ 1	-177.82	8.89	121.29	-0.11	-665.27	429.75
199/ 183/ 1	-177.82	8.89	61.55	-0.11	541.46	312.46
200/ 183/ 1	-245.93	93.33	77.41	-0.92	-171.06	449.81
200/ 187/ 1	-266.54	186.60	-53.20	-1.00	-106.42	-863.44
201/ 207/ 1	274.92	-120.69	1.98	0.18	-90.02	-846.48
201/ 210/ 1	274.92	-120.69	-47.18	0.18	-361.23	601.85
202/ 210/ 1	1184.70	7.61	337.47	-0.02	-1978.43	362.03
202/ 211/ 1	1184.70	7.61	283.40	-0.02	2119.32	261.55
203/ 211/ 1	180.24	121.70	-142.23	-0.13	1015.36	551.88
203/ 214/ 1	180.24	121.70	-183.20	-0.13	-611.77	-665.10
204/ 208/ 1	79.81	-129.51	-14.49	0.45	-1.42	-856.25
204/ 209/ 1	79.81	-129.51	-63.65	0.45	-470.26	697.84
205/ 209/ 1	782.43	10.41	336.29	-0.05	-2006.68	275.93
205/ 212/ 1	782.43	10.41	282.21	-0.05	2075.40	138.56
206/ 212/ 1	-14.94	159.36	-135.09	-0.54	928.15	731.77
206/ 213/ 1	-14.94	159.36	-176.06	-0.54	-627.64	-861.84
207/ 162/ 1	111.89	106.51	151.65	0.02	-288.50	864.12
207/ 161/ 1	111.89	106.51	106.48	0.02	614.97	118.58
208/ 161/ 1	119.88	25.01	1.94	0.02	614.97	118.58
208/ 160/ 1	119.88	25.01	-43.22	0.02	470.50	-56.53
209/ 160/ 1	1567.97	6.64	-58.69	-0.04	471.04	-55.00
209/ 159/ 1	1567.97	6.64	-103.86	-0.04	-97.87	-101.50
210/ 159/ 1	1570.64	44.34	-51.67	-0.04	-97.87	-101.50
210/ 158/ 1	1570.64	44.34	-96.84	-0.04	-617.67	-411.89
211/ 40/ 1	-750.55	-6.62	-11.31	0.02	186.31	-105.18
211/ 39/ 1	-750.55	-6.62	-50.77	0.02	-49.59	-54.85
212/ 39/ 1	1187.85	-6.62	14.64	-0.05	16.81	-77.05
212/ 38/ 1	1187.85	-6.62	-51.82	-0.05	-221.16	7.64
213/ 38/ 1	389.89	-6.62	40.05	0.05	-182.36	14.11
213/ 301/ 1	389.89	-6.62	0.59	0.05	-27.92	64.46
214/ 63/ 1	587.96	-14.18	220.87	-0.33	296.69	-247.15
214/ 64/ 1	587.96	-14.18	202.69	-0.33	1037.92	-197.51
215/ 64/ 1	622.18	-14.22	-162.44	-0.01	1188.82	-197.64
215/ 65/ 1	622.18	-14.22	-216.96	-0.01	-803.05	-48.33
216/ 65/ 1	-1269.17	-12.19	80.73	0.07	-571.55	-48.27
216/ 66/ 1	-1269.17	-12.19	26.21	0.07	-10.13	79.71
217/ 66/ 1	-1250.72	-12.16	-346.46	0.09	88.73	79.71
217/ 67/ 1	-1250.72	-12.16	-364.64	0.09	-1155.69	122.28
218/ 106/ 1	123.06	-18.73	-379.98	-0.06	1783.26	-329.44
218/ 107/ 1	123.06	-18.73	-398.16	-0.06	421.52	-263.88
219/ 107/ 1	88.84	-18.69	-76.11	-0.01	592.29	-263.76
219/ 108/ 1	88.84	-18.69	-130.62	-0.01	-493.05	-67.48
220/ 108/ 1	39.47	-18.68	-15.42	0.07	-260.47	-67.55
220/ 109/ 1	39.47	-18.68	-69.94	0.07	-708.63	128.55
221/ 109/ 1	21.02	-18.70	259.65	-0.19	-634.09	128.55

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002		
	Part of Structure: Boiler House and Turbine Pedestal support structures						Sheet No./rev.:
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22			
Ref.	Calculations					Output	

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
221/ 110/ 1	21.02	-18.70	241.47	-0.19	242.87	194.00
222/ 169/ 1	-2097.56	-50.93	23.57	-0.25	-79.66	-768.43
222/ 170/ 1	-2097.56	-50.93	-58.14	-0.25	-321.69	-55.41
223/ 170/ 1	-3994.68	-50.90	35.38	0.23	-289.51	-165.73
223/ 171/ 1	-3994.68	-50.90	-46.33	0.23	-366.17	546.91
224/ 226/ 1	903.94	-56.90	3563.06	-0.17	-6389.22	-840.01
224/ 225/ 1	903.94	-56.90	-3737.27	-0.17	-7608.67	-43.39
225/ 225/ 1	235.16	-56.89	3758.75	0.12	-7603.66	-150.82
225/ 224/ 1	235.16	-56.89	-3541.58	0.12	-6083.52	645.59
226/ 221/ 1	286.71	0.00	2657.38	0.0	0.0	0.0
226/ 220/ 1	286.71	0.00	-2657.38	0.0	0.0	0.0
227/ 222/ 1	266.05	-0.00	12317.38	0.0	0.0	0.0
227/ 223/ 1	266.05	-0.00	-12317.38	0.0	0.0	0.0
230/ 63/ 1	1877.28	1.59	8.11	0.0	0.0	0.0
230/ 39/ 1	1907.86	1.59	-10.94	0.0	-20.38	-22.83
231/ 38/ 1	570.61	-0.46	13.87	0.0	-62.45	-6.59
231/ 67/ 1	540.03	-0.46	-5.18	0.0	0.0	0.0
232/ 39/ 1	-1764.29	1.58	20.94	0.0	-86.78	21.79
232/ 65/ 1	-1820.11	1.58	-8.34	0.0	0.0	0.0
233/ 65/ 1	2348.79	-0.47	12.92	0.0	0.0	0.0
233/ 38/ 1	2404.61	-0.47	-16.36	0.0	-23.65	6.43
234/ 64/ 1	365.14	-34.22	0.04	0.13	-0.31	-150.90
234/ 107/ 1	322.05	-34.22	0.04	0.13	0.05	170.77
235/ 66/ 1	372.67	-18.45	-0.03	0.00	-0.02	-98.86
235/ 109/ 1	329.59	-18.45	-0.03	0.00	-0.26	74.53
236/ 65/ 1	160.60	-49.37	0.02	-0.07	-0.08	-231.50
236/ 108/ 1	115.20	-49.37	0.02	-0.07	0.08	232.58
237/ 106/ 1	-1358.33	3.95	20.91	0.0	0.0	0.0
237/ 170/ 1	-1425.20	3.95	-32.89	0.0	-133.72	-88.30
238/ 170/ 1	1599.32	3.93	34.33	0.0	-165.90	87.69
238/ 110/ 1	1666.19	3.93	-19.47	0.0	0.0	0.0
239/ 169/ 1	4188.83	3.84	21.63	0.0	0.0	0.0
239/ 225/ 1	4115.81	3.84	-32.17	0.0	-124.40	-90.73
240/ 225/ 1	5242.94	3.83	32.39	0.0	-129.41	90.37
240/ 171/ 1	5315.96	3.83	-21.42	0.0	0.0	0.0
241/ 24/ 1	1362.41	18.57	21.45	0.0	0.0	0.0
241/ 71/ 1	1276.14	18.57	-36.38	0.0	-160.87	-400.26
242/ 72/ 1	1718.39	-19.87	26.86	0.0	-56.73	-407.43
242/ 31/ 1	1804.65	-19.87	-21.33	0.0	0.0	0.0
243/ 25/ 1	1052.18	0.0	28.92	0.0	0.0	0.0
243/ 70/ 1	965.92	0.0	-28.92	0.0	0.0	0.0
244/ 73/ 1	2128.31	0.0	24.10	0.0	0.0	0.0
244/ 30/ 1	2214.57	0.0	-24.10	0.0	0.0	0.0
245/ 132/ 1	678.88	1.19	7.77	-13.06	0.31	76.93
245/ 71/ 1	700.91	1.19	-13.90	-13.06	-52.09	56.60
246/ 72/ 1	-126.75	1.46	7.85	7.79	-20.74	64.30
246/ 141/ 1	-148.78	1.46	-10.20	7.79	-39.26	41.23
247/ 136/ 1	605.30	-14.62	10.34	0.0	0.0	0.0
247/ 166/ 1	586.34	-14.62	-13.49	0.0	-26.60	246.66
248/ 163/ 1	-148.09	14.41	15.46	0.0	-59.70	243.10
248/ 140/ 1	-129.13	14.41	-8.38	0.0	0.0	0.0
249/ 134/ 1	815.96	-1.47	7.79	0.0	0.0	0.0

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
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	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
249/ 70/ 1	837.99	-1.47	-13.88	0.0	-52.05	25.23
250/ 73/ 1	74.81	-0.16	11.79	0.0	-43.49	-2.50
250/ 142/ 1	52.78	-0.16	-6.27	0.0	0.0	0.0
251/ 135/ 1	464.25	-5.66	10.29	0.0	0.0	0.0
251/ 165/ 1	445.29	-5.66	-13.55	0.0	-27.46	95.40
252/ 164/ 1	54.51	4.92	15.38	0.0	-58.34	82.99
252/ 139/ 1	73.47	4.92	-8.46	0.0	0.0	0.0
253/ 71/ 1	667.52	-5.55	5.77	57.94	-12.54	-40.27
253/ 137/ 1	636.93	-5.55	-10.77	57.94	-47.19	36.71
254/ 137/ 1	-387.41	4.50	6.19	-54.47	6.36	24.87
254/ 72/ 1	-356.83	4.50	-10.35	-54.47	-22.48	-37.48
255/ 70/ 1	374.35	-4.58	6.70	11.97	-17.06	-57.67
255/ 138/ 1	343.76	-4.58	-9.84	11.97	-38.83	5.84
256/ 138/ 1	-81.67	3.70	7.09	-16.99	-2.01	9.91
256/ 73/ 1	-51.09	3.70	-9.45	-16.99	-18.36	-41.46
257/ 162/ 1	1052.79	34.55	8.36	0.0	0.0	0.0
257/ 180/ 1	1018.20	34.55	-14.70	0.0	-34.31	-373.72
258/ 180/ 1	1151.97	-61.17	-4.48	173.78	47.65	-304.52
258/ 210/ 1	1119.30	-61.17	-27.54	173.78	-118.89	331.94
260/ 211/ 1	2354.51	52.06	-6.65	-160.94	87.39	255.67
260/ 185/ 1	2387.17	52.06	-25.86	-160.94	-72.89	-257.74
261/ 185/ 1	2311.28	-30.83	14.01	0.0	-45.33	-317.44
261/ 167/ 1	2345.87	-30.83	-5.20	0.0	0.0	0.0
262/ 207/ 1	-163.01	-9.36	2.99	30.78	-5.49	-72.19
262/ 180/ 1	-154.19	-9.36	-3.24	30.78	-6.81	25.16
263/ 185/ 1	19.29	6.87	3.34	-17.74	-7.40	20.22
263/ 214/ 1	10.47	6.87	-1.85	-17.74	-0.09	-47.54
264/ 158/ 1	805.16	50.44	9.92	0.0	0.0	0.0
264/ 179/ 1	770.57	50.44	-13.14	0.0	-17.37	-545.56
265/ 179/ 1	807.83	-69.71	-2.31	173.17	32.99	-500.29
265/ 209/ 1	775.16	-69.71	-25.37	173.17	-110.97	225.03
266/ 212/ 1	1967.14	56.97	-9.09	-112.29	93.45	122.73
266/ 186/ 1	1999.81	56.97	-28.31	-112.29	-90.98	-439.06
267/ 186/ 1	1978.65	-43.31	12.46	0.0	-29.32	-445.94
267/ 168/ 1	2013.24	-43.31	-6.76	0.0	0.0	0.0
268/ 208/ 1	-55.40	-10.50	3.09	24.10	-5.89	-59.44
268/ 179/ 1	-46.59	-10.50	-3.13	24.10	-6.11	49.83
269/ 186/ 1	80.54	7.01	2.89	-19.28	-5.25	41.42
269/ 213/ 1	71.72	7.01	-2.30	-19.28	-2.31	-27.73
270/ 16/ 1	634.65	-0.01	18.43	1.58	-69.95	-5.11
270/ 33/ 1	584.69	-0.01	-11.16	1.58	-14.97	-4.97
271/ 33/ 1	2201.18	0.35	11.76	-2.45	-22.02	-2.22
271/ 14/ 1	2251.14	0.35	-12.07	-2.45	-24.27	-7.24
272/ 13/ 1	112.75	-1.39	17.36	3.01	-75.59	-16.69
272/ 34/ 1	62.79	-1.39	-0.31	3.01	41.98	2.51
273/ 34/ 1	1423.03	1.01	15.63	-1.09	-70.66	-1.02
273/ 12/ 1	1472.99	1.01	-2.05	-1.09	23.00	-14.93
274/ 11/ 1	25.64	0.39	18.18	1.66	-78.38	2.70
274/ 35/ 1	-24.32	0.39	-5.65	1.66	11.85	-2.92
275/ 35/ 1	2197.60	-1.00	16.99	0.81	-49.39	-9.31
275/ 9/ 1	2247.57	-1.00	-12.60	0.81	-16.23	5.79
276/ 32/ 1	66.89	-0.34	-98.26	0.0	0.0	0.0

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures				Sheet No./rev.:	
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations				Output	

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
276/ 57/ 1	-20.39	-0.34	-134.11	0.0	-703.35	2.07
277/ 57/ 1	38.33	0.09	120.86	1.89	-701.36	2.07
277/ 105/ 1	-178.32	0.09	32.01	1.89	446.94	0.77
278/ 97/ 1	6000.54	-0.05	337.79	0.12	-3183.26	-0.02
278/ 58/ 1	6217.19	-0.05	248.94	0.12	1224.02	0.69
279/ 58/ 1	6326.11	0.10	-182.76	0.0	1214.91	0.58
279/ 36/ 1	6413.40	0.10	-218.61	0.0	0.0	0.0
280/ 57/ 1	261.62	-0.43	3.39	0.45	-1.99	-1.84
280/ 33/ 1	267.43	-0.43	-4.60	0.45	-7.72	2.24
281/ 35/ 1	-436.05	0.14	3.72	-0.08	-6.54	1.50
281/ 58/ 1	-441.86	0.14	-4.26	-0.08	-9.11	0.14
283/ 162/ 1	14.65	12.91	19.36	0.0	-50.96	182.33
283/ 112/ 1	58.85	12.91	-12.15	0.0	0.0	0.0
284/ 112/ 1	850.45	15.68	28.70	-12.66	-43.21	34.20
284/ 101/ 1	873.51	15.68	6.41	-12.66	103.27	-96.64
285/ 101/ 1	-1703.09	13.10	-13.05	-18.16	105.89	91.56
285/ 113/ 1	-1726.14	13.10	-35.34	-18.16	-95.97	-17.73
286/ 113/ 1	-3617.96	15.53	15.92	0.0	0.0	0.0
286/ 158/ 1	-3662.16	15.53	-15.59	0.0	2.32	-219.42
287/ 111/ 1	197.56	-0.47	4.07	4.07	-5.09	8.16
287/ 112/ 1	197.56	-0.47	-4.44	4.07	-6.60	11.98
288/ 113/ 1	269.68	-0.85	4.14	0.23	-6.77	-4.22
288/ 114/ 1	269.68	-0.85	-4.36	0.23	-7.66	2.75
289/ 104/ 1	484.49	9.22	9.99	45.18	-15.21	76.71
289/ 112/ 1	469.45	9.22	-10.57	45.18	-18.16	-16.99
290/ 112/ 1	-800.80	-4.78	-5.98	7.92	34.78	-18.45
290/ 102/ 1	-785.76	-4.78	-5.98	7.92	-1.13	10.22
291/ 100/ 1	-2107.59	-16.51	-1.08	6.60	-0.37	-54.61
291/ 113/ 1	-2122.63	-16.51	-1.08	6.60	-6.86	44.47
292/ 113/ 1	796.14	-2.67	17.67	2.98	-44.74	-15.86
292/ 98/ 1	811.18	-2.67	-2.89	2.98	30.35	11.26
293/ 189/ 1	-162.76	-2.56	13.42	-57.70	-23.87	98.87
293/ 173/ 1	-132.79	-2.56	-13.49	-57.70	-24.23	125.68
294/ 173/ 1	465.08	17.45	16.86	0.0	-32.32	165.54
294/ 160/ 1	489.68	17.45	-10.04	0.0	0.0	0.0
295/ 160/ 1	-1203.49	12.43	4.78	0.0	0.0	0.0
295/ 175/ 1	-1228.08	12.43	-22.13	0.0	-82.29	-117.86
296/ 175/ 1	-1627.24	0.30	24.02	-37.45	-81.82	-89.86
296/ 192/ 1	-1657.21	0.30	-2.88	-37.45	28.94	-93.05
297/ 172/ 1	216.07	11.70	4.18	3.51	-5.88	65.55
297/ 173/ 1	216.07	11.70	-3.09	3.51	-2.07	-16.36
298/ 175/ 1	-246.44	6.66	1.26	2.68	2.15	8.03
298/ 176/ 1	-246.44	6.66	-6.01	2.68	-14.48	-38.56
299/ 162/ 1	329.66	-1.66	7.47	0.0	0.0	0.0
299/ 173/ 1	313.62	-1.66	-10.07	0.0	-12.33	15.79
300/ 173/ 1	-592.30	0.99	9.98	0.0	-63.84	6.31
300/ 161/ 1	-576.26	0.99	9.98	0.0	0.0	0.0
301/ 159/ 1	-740.77	1.68	-6.48	0.0	0.0	0.0
301/ 175/ 1	-756.82	1.68	-6.48	0.0	-41.50	-10.74
302/ 175/ 1	615.88	-1.02	10.18	0.0	-13.35	-9.64
302/ 158/ 1	631.93	-1.02	-7.37	0.0	0.0	0.0
303/ 215/ 1	-1024.93	6.45	18.59	-64.60	-28.30	159.86



BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Job Ref.:
C2002

Part of Structure:
Boiler House and Turbine Pedestal support structures

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

App'd by:
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Ref.

Calculations

Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
303/ 190/ 1	-998.80	6.45	-19.84	-64.60	-35.88	81.81
304/ 191/ 1	-1426.15	8.28	23.11	-51.76	-64.14	-70.46
304/ 219/ 1	-1452.28	8.28	-15.32	-51.76	-17.09	-170.65
305/ 216/ 1	268.01	2.67	-1.33	0.73	12.78	19.11
305/ 190/ 1	275.07	2.67	-5.48	0.73	-14.11	-1.99
306/ 190/ 1	430.26	1.83	2.07	0.38	-0.71	10.35
306/ 217/ 1	423.20	1.83	-2.08	0.38	-0.75	-4.07
307/ 217/ 1	729.07	0.79	2.95	0.92	-3.79	3.92
307/ 191/ 1	736.12	0.79	-1.20	0.92	3.12	-2.33
308/ 191/ 1	230.34	-0.23	6.88	-3.42	-20.03	-3.82
308/ 218/ 1	223.28	-0.23	2.73	-3.42	17.90	-2.04
309/ 193/ 1	156.98	2.99	10.45	0.02	-14.24	15.23
309/ 228/ 1	147.67	2.99	-0.07	0.02	3.79	4.84
310/ 228/ 1	192.06	2.71	3.47	-0.05	2.65	5.09
310/ 230/ 1	182.75	2.71	-7.05	-0.05	-3.56	-4.31
311/ 230/ 1	181.20	3.00	10.43	0.13	-4.07	-3.96
311/ 232/ 1	171.89	3.00	-0.09	0.13	13.88	-14.38
312/ 232/ 1	162.57	2.13	-2.81	-0.01	13.92	10.08
312/ 234/ 1	153.26	2.13	-13.33	-0.01	-14.10	2.67
313/ 234/ 1	94.72	2.08	8.13	-0.03	-10.05	2.69
313/ 236/ 1	85.41	2.08	-2.40	-0.03	-0.11	-4.53
314/ 236/ 1	12.68	2.28	3.62	0.06	-0.09	-4.18
314/ 238/ 1	4.58	2.28	-7.31	0.06	-6.30	-11.86
315/ 238/ 1	77.11	-0.14	5.53	-0.17	-6.20	-3.28
315/ 237/ 1	79.20	-0.14	5.53	-0.17	4.85	-3.00
316/ 237/ 1	140.28	-0.31	0.76	0.0	-4.80	-1.93
316/ 215/ 1	146.88	-0.31	0.76	0.0	0.0	0.0
319/ 229/ 1	-173.14	0.21	5.93	-0.01	-1.62	-0.14
319/ 231/ 1	-175.55	0.21	3.21	-0.01	14.24	-0.87
320/ 231/ 1	-166.34	-0.01	-5.63	0.11	14.22	-0.71
320/ 233/ 1	-168.75	-0.01	-8.35	0.11	-10.05	-0.68
321/ 233/ 1	-153.04	0.06	5.30	0.01	-8.18	-0.57
321/ 235/ 1	-155.45	0.06	2.58	0.01	5.50	-0.79
322/ 235/ 1	-83.98	0.24	-2.94	0.06	6.47	-0.74
322/ 237/ 1	-86.39	0.24	-5.77	0.06	-8.97	-1.58
323/ 227/ 1	32.69	-0.23	-0.97	0.00	1.39	-0.31
323/ 228/ 1	32.17	-0.23	-0.97	0.00	-0.84	0.22
324/ 228/ 1	-29.93	0.06	0.11	-0.00	0.30	-0.14
324/ 229/ 1	-29.93	0.06	-0.48	-0.00	-0.18	-0.29
326/ 229/ 1	13.26	0.07	-0.51	-0.00	0.66	0.26
326/ 230/ 1	12.74	0.07	-0.51	-0.00	-0.52	0.10
327/ 230/ 1	13.26	-0.22	0.68	0.00	-0.01	-0.38
327/ 231/ 1	13.26	-0.22	0.09	0.00	0.99	0.20
328/ 231/ 1	0.61	-0.01	-0.51	0.00	1.00	-0.02
328/ 311/ 1	0.16	-0.01	-0.51	0.00	-0.01	-0.00
329/ 311/ 1	0.51	-0.01	0.16	0.00	-0.01	0.00
329/ 312/ 1	0.51	-0.01	-0.43	0.00	-0.36	0.02
330/ 312/ 1	-0.43	-0.01	-0.51	0.02	-0.36	-0.00
330/ 234/ 1	-21.65	-0.08	2.22	-0.00	2.72	0.02
331/ 234/ 1	55.85	-0.02	1.06	0.00	-1.33	0.00
331/ 235/ 1	55.85	-0.02	0.48	0.00	0.67	0.05
332/ 235/ 1	-43.88	-0.19	0.27	-0.00	-0.30	-0.01

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures				Sheet No./rev.:	
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
332/ 236/ 1	-44.40	-0.19	0.27	-0.00	0.32	0.44
333/ 236/ 1	57.26	-0.40	-0.06	0.00	0.30	-0.08
333/ 237/ 1	57.26	-0.40	-0.67	0.00	-0.67	1.00
334/ 194/ 1	20.67	3.55	12.70	0.07	-23.93	18.41
334/ 240/ 1	11.37	3.55	2.18	0.07	1.90	6.09
335/ 240/ 1	70.50	3.71	4.99	-0.15	0.15	6.54
335/ 242/ 1	61.19	3.71	-5.54	-0.15	-0.80	-6.35
336/ 242/ 1	98.37	4.27	4.62	-0.14	-1.01	-4.69
336/ 244/ 1	89.07	4.27	-5.90	-0.14	-3.22	-19.51
337/ 244/ 1	66.49	1.93	8.64	0.13	-2.91	9.92
337/ 246/ 1	57.18	1.93	-1.88	0.13	8.81	3.23
338/ 246/ 1	50.21	1.96	-4.28	-0.01	12.52	3.35
338/ 248/ 1	42.79	1.96	-12.67	-0.01	-16.89	-3.46
339/ 248/ 1	16.69	2.25	9.11	0.09	-14.85	-3.71
339/ 250/ 1	8.60	2.25	-1.82	0.09	-2.61	-11.28
340/ 250/ 1	-77.62	-1.27	9.51	-0.18	-2.65	-5.03
340/ 249/ 1	-75.52	-1.27	9.51	-0.18	16.36	-2.50
341/ 249/ 1	-27.33	-1.03	7.29	0.08	-28.48	-1.38
341/ 216/ 1	-20.73	-1.03	7.29	0.08	17.43	5.10
344/ 239/ 1	-5.67	-0.98	0.54	-0.17	3.66	-4.14
344/ 241/ 1	-8.08	-0.98	-2.18	-0.17	0.82	-0.74
345/ 241/ 1	-60.95	-0.61	0.24	-0.11	0.57	-2.34
345/ 243/ 1	-63.36	-0.61	-2.49	-0.11	-3.33	-0.21
346/ 243/ 1	-80.78	-0.72	10.94	0.03	-5.19	-0.09
346/ 245/ 1	-83.19	-0.72	8.22	0.03	28.08	2.41
348/ 245/ 1	-53.69	0.53	-8.37	-0.04	35.55	1.93
348/ 247/ 1	-56.10	0.53	-11.10	-0.04	1.75	0.10
349/ 247/ 1	-55.88	0.53	-12.14	-0.05	1.75	0.09
349/ 249/ 1	-58.29	0.53	-14.97	-0.05	-46.34	-1.78
350/ 239/ 1	41.85	0.54	-1.23	-0.00	1.49	1.70
350/ 240/ 1	41.34	0.54	-1.23	-0.00	-1.34	0.46
351/ 240/ 1	-41.21	0.37	0.05	0.00	0.41	-0.19
351/ 241/ 1	-41.21	0.37	-0.53	0.00	-0.22	-1.15
352/ 241/ 1	32.69	0.00	0.01	-0.00	0.03	1.10
352/ 242/ 1	32.17	0.00	0.01	-0.00	0.05	1.09
353/ 242/ 1	-21.12	-0.55	-0.07	0.00	0.26	-1.26
353/ 243/ 1	-21.12	-0.55	-0.66	0.00	-0.70	0.18
354/ 243/ 1	0.83	-0.45	-0.83	-0.01	1.16	0.03
354/ 244/ 1	0.31	-0.45	-0.83	-0.01	-0.75	1.05
355/ 244/ 1	29.46	1.28	1.81	0.00	-1.11	2.92
355/ 245/ 1	29.46	1.28	1.22	0.00	2.83	-0.41
356/ 245/ 1	-5.89	0.03	3.63	-0.00	-4.64	0.26
356/ 246/ 1	-6.41	0.03	3.63	-0.00	3.71	0.18
357/ 248/ 1	32.45	-0.29	1.61	0.00	-2.04	0.33
357/ 249/ 1	32.45	-0.29	1.00	0.00	1.49	1.12
358/ 195/ 1	31.53	3.16	16.51	0.07	-33.96	16.78
358/ 252/ 1	22.22	3.16	5.98	0.07	5.07	5.81
359/ 252/ 1	93.63	3.33	4.10	-0.15	2.36	6.25
359/ 254/ 1	84.32	3.33	-6.42	-0.15	-1.67	-5.29
360/ 254/ 1	121.57	3.82	5.88	-0.15	-1.86	-3.59
360/ 256/ 1	112.26	3.82	-4.64	-0.15	0.29	-16.84
361/ 256/ 1	108.49	2.56	4.85	0.08	0.23	12.35

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
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	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
361/ 258/ 1	99.18	2.56	-5.67	0.08	-1.19	3.48
362/ 258/ 1	64.49	2.64	4.53	-0.08	-0.51	3.93
362/ 260/ 1	55.18	2.64	-5.99	-0.08	-3.04	-5.24
363/ 260/ 1	1.01	2.99	5.53	0.02	-2.87	-4.54
363/ 262/ 1	-7.09	2.99	-5.40	0.02	-2.64	-14.59
364/ 262/ 1	17.43	0.16	-2.71	-0.20	-2.64	0.61
364/ 261/ 1	19.53	0.16	-2.71	-0.20	-8.05	0.29
365/ 261/ 1	63.73	0.22	3.54	0.0	-22.28	1.40
365/ 217/ 1	70.33	0.22	3.54	0.0	0.0	0.0
367/ 251/ 1	-17.81	-1.17	-2.89	-0.18	12.62	-4.65
367/ 253/ 1	-20.22	-1.17	-5.61	-0.18	-2.14	-0.60
368/ 253/ 1	-82.93	-0.78	2.94	-0.13	-2.38	-2.24
368/ 255/ 1	-85.34	-0.78	0.22	-0.13	3.10	0.47
369/ 255/ 1	-111.18	-0.80	0.88	-0.01	2.66	0.38
369/ 257/ 1	-113.59	-0.80	-1.84	-0.01	0.99	3.16
370/ 257/ 1	-97.09	0.43	2.08	-0.06	1.00	2.22
370/ 259/ 1	-99.50	0.43	-0.65	-0.06	3.48	0.74
371/ 259/ 1	-56.80	0.58	-3.57	0.03	4.69	0.39
371/ 261/ 1	-59.20	0.58	-6.39	0.03	-12.97	-1.66
372/ 251/ 1	46.44	0.55	-2.15	-0.00	2.76	1.73
372/ 252/ 1	45.92	0.55	-2.15	-0.00	-2.17	0.46
373/ 252/ 1	-52.58	0.39	0.02	0.00	0.54	-0.19
373/ 253/ 1	-52.58	0.39	-0.57	0.00	-0.17	-1.19
374/ 253/ 1	34.58	0.00	-0.05	-0.00	0.07	1.13
374/ 254/ 1	34.06	0.00	-0.05	-0.00	-0.05	1.12
375/ 254/ 1	-19.70	-0.49	0.16	0.00	0.14	-1.27
375/ 255/ 1	-19.70	-0.49	-0.42	0.00	-0.19	0.01
376/ 255/ 1	16.20	-0.47	-0.10	-0.00	0.25	0.15
376/ 256/ 1	15.69	-0.47	-0.10	-0.00	0.02	1.23
377/ 256/ 1	9.58	1.30	0.23	0.00	0.09	2.64
377/ 257/ 1	9.58	1.30	-0.35	0.00	-0.08	-0.74
378/ 257/ 1	-14.23	0.07	0.18	0.00	-0.09	0.59
378/ 258/ 1	-14.74	0.07	0.18	0.00	0.34	0.42
379/ 258/ 1	32.55	-0.01	0.60	0.00	-0.35	-0.23
379/ 259/ 1	32.55	-0.01	0.01	0.00	0.45	-0.20
380/ 259/ 1	-26.85	-0.17	0.62	-0.00	-0.77	0.31
380/ 260/ 1	-27.37	-0.17	0.62	-0.00	0.65	0.69
381/ 260/ 1	47.17	-0.51	-0.34	0.00	0.48	-0.34
381/ 261/ 1	47.17	-0.51	-0.95	0.00	-1.26	1.05
382/ 196/ 1	11.09	4.13	16.25	0.07	-33.83	20.90
382/ 264/ 1	1.78	4.13	5.73	0.07	4.32	6.56
383/ 264/ 1	76.32	4.26	4.22	-0.18	1.72	7.16
383/ 266/ 1	67.01	4.26	-6.31	-0.18	-1.90	-7.61
384/ 266/ 1	110.01	4.88	5.85	-0.13	-2.18	-5.77
384/ 268/ 1	100.70	4.88	-4.67	-0.13	-0.13	-22.71
385/ 268/ 1	98.46	4.31	4.98	0.09	-0.32	20.73
385/ 270/ 1	89.15	4.31	-5.54	0.09	-1.28	5.76
386/ 270/ 1	65.94	4.30	4.84	-0.14	-0.82	6.61
386/ 272/ 1	56.63	4.30	-5.68	-0.14	-2.27	-8.31
387/ 272/ 1	10.49	4.83	4.90	0.02	-1.86	-7.07
387/ 314/ 1	2.40	4.83	-6.03	0.02	-3.75	-23.31
388/ 314/ 1	-78.11	0.61	1.05	-0.31	-3.74	3.24

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	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
388/ 273/ 1	-76.01	0.61	1.05	-0.31	-1.64	2.02
389/ 273/ 1	-35.90	0.58	1.51	0.0	-9.52	3.67
389/ 218/ 1	-29.30	0.58	1.51	0.0	0.0	0.0
391/ 263/ 1	15.53	-1.13	-1.88	-0.20	9.50	-4.87
391/ 265/ 1	13.12	-1.13	-4.60	-0.20	-1.75	-0.94
392/ 265/ 1	-53.85	-0.77	2.74	-0.13	-2.20	-2.76
392/ 267/ 1	-56.25	-0.77	0.01	-0.13	2.57	-0.09
393/ 267/ 1	-87.59	-1.13	1.08	0.02	2.04	-0.05
393/ 269/ 1	-90.00	-1.13	-1.65	0.02	1.05	3.89
394/ 269/ 1	-84.38	0.54	1.74	-0.09	0.99	2.83
394/ 271/ 1	-86.79	0.54	-0.99	-0.09	2.29	0.95
395/ 271/ 1	-53.47	0.79	-1.49	0.04	3.07	0.31
395/ 273/ 1	-55.88	0.79	-4.32	0.04	-7.23	-2.50
396/ 263/ 1	48.75	0.52	-1.96	-0.00	2.45	1.78
396/ 264/ 1	48.23	0.52	-1.96	-0.00	-2.05	0.58
400/ 264/ 1	-54.87	0.40	-0.02	0.00	0.55	-0.29
400/ 265/ 1	-54.87	0.40	-0.61	0.00	-0.26	-1.32
401/ 265/ 1	38.27	0.03	-0.15	-0.00	0.18	1.26
401/ 266/ 1	37.75	0.03	-0.15	-0.00	-0.16	1.18
402/ 266/ 1	-24.00	-0.59	0.16	0.00	0.12	-1.41
402/ 267/ 1	-24.00	-0.59	-0.42	0.00	-0.22	0.13
403/ 267/ 1	19.54	-0.23	-0.18	-0.01	0.32	0.08
403/ 268/ 1	19.03	-0.23	-0.18	-0.01	-0.09	0.61
404/ 268/ 1	1.85	1.63	0.23	0.00	0.08	3.37
404/ 269/ 1	1.85	1.63	-0.36	0.00	-0.09	-0.86
405/ 269/ 1	-6.62	-0.05	0.12	0.00	-0.03	0.62
405/ 270/ 1	-7.13	-0.05	0.12	0.00	0.24	0.73
406/ 270/ 1	24.15	-0.03	0.47	-0.00	-0.22	-0.48
406/ 271/ 1	24.15	-0.03	-0.11	-0.00	0.25	-0.40
407/ 271/ 1	-22.55	-0.29	0.47	-0.00	-0.53	0.52
407/ 272/ 1	-23.07	-0.29	0.47	-0.00	0.54	1.18
408/ 272/ 1	40.20	-0.82	0.02	0.00	0.13	-0.65
408/ 273/ 1	40.20	-0.82	-0.59	0.00	-0.64	1.57
409/ 197/ 1	132.91	4.07	10.21	0.01	-14.46	20.52
409/ 276/ 1	123.60	4.07	-0.32	0.01	2.70	6.38
410/ 276/ 1	163.59	3.60	4.82	-0.08	1.45	6.86
410/ 278/ 1	154.28	3.60	-5.70	-0.08	-0.07	-5.63
411/ 278/ 1	163.14	3.89	5.34	0.06	-0.02	-5.06
411/ 280/ 1	153.84	3.89	-5.19	0.06	0.24	-18.57
412/ 280/ 1	144.34	3.81	4.94	0.03	0.57	17.26
412/ 282/ 1	135.03	3.81	-5.59	0.03	-0.57	4.03
413/ 282/ 1	83.78	3.60	4.35	-0.11	0.31	4.68
413/ 284/ 1	74.47	3.60	-6.17	-0.11	-2.85	-7.82
414/ 284/ 1	0.88	4.09	4.56	0.03	-2.30	-6.75
414/ 286/ 1	-7.22	4.09	-6.37	0.03	-5.33	-20.49
415/ 286/ 1	89.35	1.13	3.66	-0.32	-5.32	5.64
415/ 285/ 1	91.44	1.13	3.66	-0.32	2.00	3.38
416/ 285/ 1	153.33	0.83	1.37	0.0	-8.62	5.24
416/ 219/ 1	159.93	0.83	1.37	0.0	0.0	0.0
418/ 275/ 1	-143.77	0.48	-0.65	-0.01	7.85	1.91
418/ 277/ 1	-146.18	0.48	-3.37	-0.01	0.88	0.24
419/ 277/ 1	-175.41	0.49	2.02	-0.02	0.78	-0.25

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	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
419/ 279/ 1	-177.82	0.49	-0.70	-0.02	3.06	-1.96
420/ 279/ 1	-175.34	-0.61	0.95	0.09	3.02	-1.79
420/ 281/ 1	-177.75	-0.61	-1.77	0.09	1.61	0.33
421/ 281/ 1	-143.75	0.28	1.71	-0.03	1.93	0.43
421/ 283/ 1	-146.16	0.28	-1.01	-0.03	3.15	-0.55
422/ 283/ 1	-85.58	0.55	-2.60	0.07	4.44	-0.83
422/ 285/ 1	-87.99	0.55	-5.42	0.07	-9.78	-2.77
423/ 275/ 1	31.01	-0.45	-1.04	0.00	1.45	-0.65
423/ 276/ 1	30.50	-0.45	-1.04	0.00	-0.93	0.38
424/ 276/ 1	-25.51	0.03	0.15	-0.00	0.32	-0.30
424/ 277/ 1	-25.51	0.03	-0.43	-0.00	-0.05	-0.37
425/ 277/ 1	14.90	0.02	0.05	-0.00	0.05	0.31
425/ 278/ 1	14.38	0.02	0.05	-0.00	0.16	0.28
426/ 278/ 1	0.63	-0.28	0.24	0.00	0.11	-0.52
426/ 279/ 1	0.63	-0.28	-0.35	0.00	-0.03	0.20
427/ 279/ 1	-3.23	0.83	0.13	-0.00	0.01	-0.03
427/ 280/ 1	-3.75	0.83	0.13	-0.00	0.30	-1.93
428/ 280/ 1	22.82	0.60	0.32	-0.00	-0.01	1.54
428/ 281/ 1	22.82	0.60	-0.26	-0.00	0.07	-0.01
429/ 281/ 1	-25.40	-0.30	0.34	0.00	-0.24	-0.15
429/ 282/ 1	-25.91	-0.30	0.34	0.00	0.54	0.53
430/ 282/ 1	44.63	-0.09	0.60	0.00	-0.34	-0.39
430/ 283/ 1	44.63	-0.09	0.02	0.00	0.46	-0.16
431/ 283/ 1	-40.11	-0.35	0.71	-0.00	-0.83	0.25
431/ 284/ 1	-40.63	-0.35	0.71	-0.00	0.79	1.05
432/ 284/ 1	61.17	-0.84	-0.10	0.00	0.25	-0.52
432/ 285/ 1	61.17	-0.84	-0.70	0.00	-0.83	1.75
433/ 238/ 1	51.27	-2.50	5.83	-0.03	-9.73	-9.62
433/ 250/ 1	51.27	-2.50	-0.46	-0.03	6.38	5.38
434/ 250/ 1	112.49	-0.98	4.94	0.01	-5.90	-3.81
434/ 262/ 1	112.49	-0.98	-3.44	0.01	0.10	4.04
435/ 262/ 1	115.32	-1.21	5.44	0.00	-7.99	-7.87
435/ 314/ 1	115.32	-1.21	-2.94	0.00	2.01	1.77
436/ 314/ 1	54.06	-5.67	5.66	0.01	-8.15	-17.24
436/ 286/ 1	54.06	-5.67	-0.62	0.01	6.97	16.76
437/ 232/ 1	0.87	-5.18	8.21	-0.04	-16.31	-18.23
437/ 244/ 1	0.87	-5.18	1.93	-0.04	14.11	12.86
438/ 244/ 1	1.48	-3.09	4.50	0.01	-4.14	-12.29
438/ 256/ 1	1.48	-3.09	-3.87	0.01	-1.62	12.46
439/ 256/ 1	0.97	-2.73	6.97	0.00	-19.56	-12.21
439/ 268/ 1	0.97	-2.73	-1.41	0.00	2.71	9.64
440/ 268/ 1	-0.31	-9.13	11.64	0.01	-25.31	-26.41
440/ 280/ 1	-0.31	-9.13	5.36	0.01	25.69	28.36
441/ 238/ 1	-83.83	-0.01	0.33	0.0	-0.66	-0.08
441/ 216/ 1	-83.10	-0.01	-0.20	0.0	0.0	0.0
442/ 215/ 1	98.84	0.01	0.26	0.00	-0.43	0.08
442/ 250/ 1	98.12	0.01	-0.27	0.00	-0.46	-0.00
443/ 314/ 1	111.40	-0.01	0.27	0.00	-0.48	-0.03
443/ 219/ 1	112.13	-0.01	-0.26	0.00	-0.42	0.02
444/ 218/ 1	-96.96	-0.00	0.27	-0.00	-0.50	-0.03
444/ 286/ 1	-97.69	-0.00	-0.25	-0.00	-0.39	0.01
445/ 202/ 1	-130.28	-0.19	1.24	-0.00	-2.57	-0.13

 Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152		Project: Gelderland Central Power Station				Job Ref.: C2002	
		Part of Structure: Boiler House and Turbine Pedestal support structures				Sheet No./rev.:	
		Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output	

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
445/ 201/ 1	-130.28	-0.19	-0.95	-0.00	-1.16	1.71
447/ 203/ 1	100.52	0.08	1.16	-0.00	-0.82	0.13
447/ 200/ 1	100.52	0.08	-0.79	-0.00	0.76	-0.58
448/ 200/ 1	-100.38	0.11	1.06	0.00	-0.76	0.67
448/ 204/ 1	-100.38	0.11	-0.89	0.00	-0.02	-0.31
449/ 204/ 1	27.58	0.12	0.91	-0.00	0.05	0.30
449/ 199/ 1	27.58	0.12	-1.04	-0.00	-0.55	-0.75
450/ 199/ 1	-27.65	0.14	0.83	0.00	0.55	0.80
450/ 205/ 1	-27.65	0.14	-1.12	0.00	-0.70	-0.41
451/ 198/ 1	207.90	-0.24	0.96	0.00	-1.15	-1.92
451/ 206/ 1	207.90	-0.24	-1.23	0.00	-2.46	0.44
452/ 201/ 1	-50.16	-1.18	1.22	-0.00	-0.28	-4.00
452/ 200/ 1	-50.16	-1.18	0.33	-0.00	2.82	0.71
453/ 200/ 1	42.28	-1.08	-1.53	0.00	3.52	-0.54
453/ 199/ 1	71.53	-1.21	1.27	-0.00	3.18	0.73
454/ 199/ 1	96.75	-1.28	-0.61	0.00	2.68	-0.82
454/ 198/ 1	96.75	-1.28	-1.51	0.00	-1.55	4.30
455/ 148/ 1	171.14	0.12	2.10	-0.00	-6.27	0.73
455/ 155/ 1	171.14	0.12	-0.78	-0.00	2.18	-0.84
456/ 155/ 1	-147.64	-0.96	0.19	-0.00	-1.91	-2.33
456/ 153/ 1	-147.64	-0.96	-1.08	-0.00	-4.44	3.09
457/ 153/ 1	126.47	-0.92	0.96	0.00	-4.01	-2.99
457/ 156/ 1	126.47	-0.92	-0.31	0.00	-2.18	2.23
458/ 156/ 1	-146.91	0.11	0.64	0.00	2.49	0.77
458/ 152/ 1	-146.91	0.11	-2.24	0.00	-7.81	-0.64
459/ 162/ 1	-109.62	0.10	2.33	0.00	-8.82	1.15
459/ 154/ 1	-109.62	0.10	0.14	0.00	3.22	0.22
460/ 154/ 1	126.05	-0.17	1.13	-0.00	-3.64	-1.11
460/ 160/ 1	126.05	-0.17	-1.37	-0.00	-4.97	0.79
461/ 160/ 1	-135.31	-0.16	1.38	0.00	-4.88	-0.74
461/ 157/ 1	-135.31	-0.16	-1.12	0.00	-3.45	0.99
462/ 157/ 1	117.75	0.02	-0.09	-0.00	3.05	-0.35
462/ 158/ 1	117.75	0.02	-2.29	-0.00	-8.59	-0.57
463/ 154/ 1	-158.15	1.12	-0.99	-0.01	4.61	1.33
463/ 155/ 1	-158.15	1.12	-1.89	-0.01	-1.17	-3.15
464/ 155/ 1	79.29	-0.62	-2.86	0.00	1.89	-1.67
464/ 156/ 1	-33.79	-0.53	2.87	-0.00	1.95	1.49
465/ 156/ 1	169.77	1.07	1.92	0.01	-1.54	2.95
465/ 157/ 1	169.77	1.07	1.03	0.01	4.36	-1.34
466/ 122/ 1	4.02	-1.18	6.06	-0.07	0.02	-6.18
466/ 121/ 1	4.02	-1.18	-1.27	-0.07	16.78	2.06
467/ 121/ 1	56.24	0.61	-3.68	0.05	17.30	2.07
467/ 120/ 1	56.24	0.61	-11.01	0.05	-34.10	-2.22
468/ 120/ 1	55.31	-0.29	11.00	-0.05	-34.06	-1.11
468/ 119/ 1	55.31	-0.29	3.67	-0.05	17.26	0.95
469/ 119/ 1	0.93	0.46	1.26	0.07	16.78	0.79
469/ 118/ 1	0.93	0.46	-6.07	0.07	-0.08	-2.45
470/ 131/ 1	-27.85	0.12	5.89	0.01	1.80	0.62
470/ 130/ 1	-27.85	0.12	-1.44	0.01	17.35	-0.23
471/ 130/ 1	-27.94	0.16	-2.65	-0.02	17.22	-0.06
471/ 129/ 1	-27.94	0.16	-9.98	-0.02	-26.96	-1.21
472/ 129/ 1	-26.19	-0.28	9.98	0.02	-26.96	-1.40

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152		Project: Gelderland Central Power Station				Job Ref.: C2002	
		Part of Structure: Boiler House and Turbine Pedestal support structures				Sheet No./rev.:	
		Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output	

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
472/ 128/ 1	-26.19	-0.28	2.64	0.02	17.21	0.59
473/ 128/ 1	-25.97	-0.46	1.44	-0.01	17.34	0.25
473/ 127/ 1	-25.97	-0.46	-5.89	-0.01	1.77	3.48
474/ 131/ 1	40.85	0.04	1.77	0.00	-2.75	0.09
474/ 121/ 1	40.85	-0.03	-1.20	-0.00	0.31	0.05
475/ 121/ 1	-38.44	0.01	1.21	0.00	-0.47	0.04
475/ 129/ 1	-38.40	0.04	-1.79	0.00	-3.57	-0.14
476/ 129/ 1	-40.85	-0.07	1.79	-0.00	-3.57	-0.18
476/ 119/ 1	-40.81	0.10	-1.21	-0.00	-0.45	-0.26
477/ 119/ 1	41.70	-0.04	1.20	0.00	0.29	-0.10
477/ 127/ 1	41.60	-0.10	-1.77	-0.00	-2.71	0.39
478/ 123/ 1	-0.06	-0.01	0.58	0.00	0.00	-0.01
478/ 130/ 1	-0.06	-0.01	-0.62	0.00	-0.12	0.05
479/ 130/ 1	0.03	-0.04	0.58	-0.00	0.09	-0.12
479/ 124/ 1	0.03	-0.04	-0.61	-0.00	0.00	0.08
480/ 125/ 1	0.17	-0.01	0.61	0.00	0.00	-0.08
480/ 128/ 1	0.17	-0.01	-0.58	0.00	0.08	0.00
481/ 128/ 1	-0.05	0.11	0.62	-0.00	-0.11	0.34
481/ 126/ 1	-0.05	0.11	-0.58	-0.00	0.00	-0.25
482/ 115/ 1	-29.30	3.33	28.37	-0.01	-80.82	1.57
482/ 132/ 1	0.41	0.29	-17.85	0.0	0.00	-0.00
483/ 116/ 1	60.43	-0.82	51.33	-0.04	-173.58	-1.29
483/ 133/ 1	-0.64	-0.06	-26.72	0.0	0.00	-0.00
484/ 117/ 1	-28.44	-1.04	28.04	-0.09	-75.46	-0.57
484/ 134/ 1	2.93	1.23	-18.19	0.0	-0.00	0.00
485/ 133/ 1	-26.72	-0.06	0.64	0.0	-0.00	-0.00
485/ 160/ 1	-37.71	-0.06	0.64	0.0	6.77	0.61
486/ 89/ 1	0.57	0.04	4.27	0.01	-6.80	0.16
486/ 91/ 1	0.57	0.04	-4.21	0.01	-6.49	-0.32
487/ 91/ 1	372.60	3.77	-16.28	-0.02	38.64	5.34
487/ 104/ 1	372.60	3.77	-19.84	-0.02	-47.01	-12.54
488/ 104/ 1	19.29	2.04	7.46	0.01	-21.22	9.92
488/ 92/ 1	19.29	2.04	1.93	0.01	13.46	-5.15
489/ 92/ 1	24.11	-0.03	3.63	-0.01	-1.06	-0.19
489/ 86/ 1	24.11	-0.03	-4.84	-0.01	-7.90	0.19
490/ 86/ 1	1.48	0.04	2.95	0.01	3.49	0.25
490/ 94/ 1	1.48	0.04	-5.53	0.01	-11.10	-0.25
491/ 94/ 1	23.91	0.01	-4.28	-0.01	24.88	0.14
491/ 98/ 1	23.91	0.01	-9.81	-0.01	-27.12	0.04
492/ 98/ 1	33.67	-0.11	19.15	0.01	-48.80	-0.27
492/ 95/ 1	33.67	-0.11	15.60	0.01	33.59	0.23
493/ 95/ 1	-1.29	-0.01	3.56	-0.01	-2.77	-0.10
493/ 83/ 1	-1.29	-0.01	-4.92	-0.01	-10.44	0.05
494/ 90/ 1	1.40	-0.02	3.88	-0.01	-4.11	-0.08
494/ 88/ 1	1.40	-0.02	-4.60	-0.01	-8.22	0.09
495/ 88/ 1	-104.49	-0.30	7.21	0.04	-9.52	-1.00
495/ 77/ 1	-104.49	-0.30	3.27	0.04	17.99	0.59
496/ 77/ 1	97.04	-0.06	2.29	-0.01	-17.48	-0.12
496/ 87/ 1	97.04	-0.06	-1.65	-0.01	-15.79	0.20
497/ 87/ 1	25.99	0.02	3.87	0.01	-3.07	0.09
497/ 93/ 1	25.99	0.02	-4.61	0.01	-7.28	-0.09
498/ 93/ 1	55.72	0.01	2.72	-0.01	3.68	0.13

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures				Sheet No./rev.:	
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
498/ 85/ 1	55.72	0.01	-5.76	-0.01	-13.50	-0.02
499/ 85/ 1	8.25	0.10	-0.74	0.01	1.10	0.15
499/ 81/ 1	8.25	0.10	-4.67	0.01	-13.11	-0.39
500/ 81/ 1	-15.03	0.25	-1.46	-0.02	13.31	0.78
500/ 84/ 1	-15.03	0.25	-5.40	-0.02	-4.70	-0.53
501/ 84/ 1	8.63	0.00	3.66	0.01	-4.02	0.01
501/ 96/ 1	8.63	0.00	-4.82	0.01	-10.55	-0.02
502/ 88/ 1	65.20	-0.10	2.77	0.00	7.18	-0.60
502/ 92/ 1	65.20	-0.10	-5.71	0.00	-9.42	0.49
503/ 91/ 1	-140.50	0.01	2.75	-0.00	7.92	0.06
503/ 87/ 1	-140.50	0.01	-5.72	-0.00	-8.87	-0.01
504/ 85/ 1	4.51	0.00	4.27	0.00	0.42	0.03
504/ 95/ 1	4.51	0.00	-4.20	0.00	0.80	0.02
505/ 94/ 1	21.28	0.02	4.24	0.00	-0.62	0.13
505/ 84/ 1	21.28	0.02	-4.24	0.00	-0.64	-0.07
506/ 316/ 1	-70.62	-0.16	3.62	-0.01	-2.70	-0.94
506/ 317/ 1	-70.62	-0.16	-3.87	-0.01	-3.98	0.64
507/ 317/ 1	99.63	-0.17	3.96	0.01	-4.46	-0.70
507/ 318/ 1	99.63	-0.17	-3.54	0.01	-2.36	0.97
508/ 318/ 1	-61.38	-0.13	3.49	-0.01	-2.71	-0.73
508/ 319/ 1	-61.38	-0.13	-4.00	-0.01	-5.27	0.54
509/ 319/ 1	-11.79	-0.01	3.86	0.01	-4.43	-0.01
509/ 320/ 1	-11.79	-0.01	-3.63	0.01	-3.27	0.14
510/ 320/ 1	44.69	0.01	3.56	-0.01	-2.60	0.05
510/ 321/ 1	44.69	0.01	-3.93	-0.01	-4.44	-0.08
511/ 321/ 1	-24.69	0.06	3.77	0.01	-3.80	0.23
511/ 322/ 1	-24.69	0.06	-3.72	0.01	-3.54	-0.41
512/ 323/ 1	31.19	-0.35	8.18	0.00	5.37	-1.38
512/ 317/ 1	31.19	-0.35	-9.44	0.00	0.35	1.40
513/ 317/ 1	-71.35	-0.58	8.47	0.00	-4.35	-2.29
513/ 324/ 1	-71.35	-0.58	-9.15	0.00	-7.07	2.36
514/ 324/ 1	-43.16	-0.33	0.78	0.00	22.92	-1.25
514/ 319/ 1	-43.16	-0.33	-16.84	0.00	-41.34	1.42
515/ 319/ 1	-63.56	0.05	9.17	-0.00	-16.07	0.29
515/ 325/ 1	-63.56	0.05	-8.45	-0.00	-13.22	-0.11
516/ 325/ 1	-55.82	0.24	4.25	-0.00	9.14	1.02
516/ 321/ 1	-55.82	0.24	-13.37	-0.00	-27.35	-0.86
517/ 321/ 1	-0.16	-0.04	-1.11	-0.01	37.98	-0.07
517/ 326/ 1	-0.16	-0.04	-18.73	-0.01	-41.36	0.25
518/ 316/ 1	19.65	-1.12	7.45	-0.00	3.96	-4.52
518/ 327/ 1	19.65	-1.12	-10.17	-0.00	-6.94	4.43
519/ 327/ 1	-16.10	-1.23	11.79	-0.00	-9.00	-4.94
519/ 318/ 1	-16.10	-1.23	-5.83	-0.00	14.81	4.89
520/ 318/ 1	81.77	-0.86	0.89	0.01	20.66	-3.47
520/ 328/ 1	81.77	-0.86	-16.73	0.01	-42.68	3.42
521/ 328/ 1	60.48	-0.26	13.45	-0.00	-38.71	-1.11
521/ 320/ 1	60.48	-0.26	-4.17	-0.00	-1.58	0.97
522/ 320/ 1	6.14	0.19	7.61	-0.00	-3.01	0.64
522/ 329/ 1	6.14	0.19	-10.01	-0.00	-12.62	-0.88
523/ 329/ 1	6.99	0.35	10.93	-0.01	-12.38	1.17
523/ 322/ 1	6.99	0.35	-6.69	-0.01	4.55	-1.64
524/ 22/ 1	229.40	-0.00	17.39	0.0	0.0	0.0



Anson House, Schooner Court,
Crossways Business Park, Dartford,
Kent, DA26QQ
Tel : 01322 277731 Fax : 01322 284152

Project:
Gelderland Central Power Station

Part of Structure:
Boiler House and Turbine Pedestal support structures

Job Ref.:
C2002

Sheet No./rev.:

Calc. by:
5.1.2e

Date:
18/08/22

App'd by:
5.1.2e

Date:
18/08/22

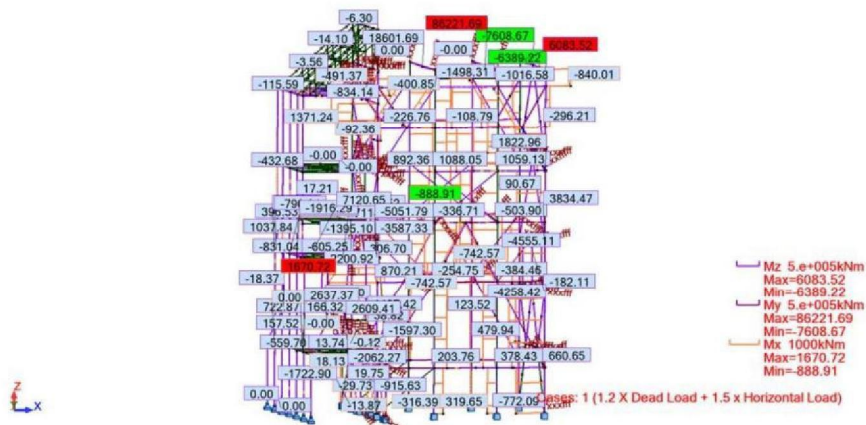
Ref.

Calculations

Output

Member/Node/Case	FX (kN)	FY (kN)	FZ (kN)	MX (kNm)	MY (kNm)	MZ (kNm)
524/ 39/ 1	169.92	-0.00	-17.39	0.0	0.0	0.0
526/ 38/ 1	3161.49	-0.00	17.39	0.0	0.0	0.0
526/ 23/ 1	3220.97	-0.00	-17.39	0.0	0.0	0.0
527/ 15/ 1	427.10	7.25	18.05	0.0	0.0	0.0
527/ 27/ 1	390.97	7.25	-28.07	0.0	-76.36	-110.46
528/ 10/ 1	115.77	1.03	17.63	0.0	0.0	0.0
528/ 26/ 1	79.64	1.03	-28.49	0.0	-82.73	-15.66
529/ 227/ 1	-138.83	0.22	-1.23	-0.01	8.22	1.01
529/ 229/ 1	-141.24	0.22	-3.95	-0.01	-0.78	0.24
530/ 193/ 1	-106.79	1.38	24.76	-0.37	-101.35	22.59
530/ 202/ 1	-4.59	1.39	-45.40	0.0	0.00	0.00
531/ 194/ 1	32.41	20.14	98.75	0.48	-260.52	83.89
531/ 203/ 1	137.49	-9.18	-39.31	0.0	0.00	-0.00
532/ 195/ 1	59.03	19.73	101.45	0.52	-352.14	81.10
532/ 204/ 1	68.17	-8.90	-33.00	0.0	0.00	0.0
533/ 196/ 1	70.44	20.82	122.23	0.46	-369.45	87.50
533/ 205/ 1	-107.26	-9.40	-35.26	0.0	0.00	0.0
534/ 197/ 1	-58.05	1.38	21.20	-0.62	-104.74	22.65
534/ 206/ 1	48.16	1.35	-44.46	0.0	0.00	-0.00

View - MX,MY,MZ, Cases: 1 (1.2 X Dead Load + 1.5 x Horizontal Load)



 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
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	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
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stresses: values						
- Case: 1 (1.2 X Dead Load + 1.5 x Horizontal Load)						
Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)	
1/ 1/ 1	19.69	19.69	0.0	-0.00		
1/ 41/ 1	44.91	-7.52	25.49	0.73		
6/ 2/ 1	49.69	49.69	-0.00	-0.00		
6/ 42/ 1	80.23	17.15	23.17	8.37		
7/ 42/ 1	79.49	-4.02	32.92	8.84		
7/ 76/ 1	106.25	-33.79	37.84	32.17		
9/ 290/ 1	18.67	4.41	0.00	7.13		
9/ 148/ 1	31.52	-11.89	19.70	2.00		
10/ 148/ 1	79.31	-68.99	26.64	47.51		
10/ 193/ 1	78.16	-70.27	17.84	56.38		
11/ 3/ 1	59.63	59.63	0.00	0.00		
11/ 43/ 1	82.93	34.33	23.71	0.58		
12/ 43/ 1	85.01	10.81	31.77	5.33		
12/ 78/ 1	90.62	2.20	36.98	7.23		
13/ 78/ 1	80.52	-46.54	47.26	16.27		
13/ 291/ 1	46.27	-13.36	13.25	16.56		
14/ 291/ 1	46.27	-13.36	13.25	16.56		
14/ 149/ 1	70.41	-39.12	37.76	17.01		
15/ 149/ 1	40.19	-34.37	13.21	24.07		
15/ 194/ 1	27.27	-23.88	12.95	12.62		
16/ 4/ 1	55.72	55.72	-0.00	-0.00		
16/ 44/ 1	80.61	28.82	23.10	2.80		
17/ 44/ 1	78.74	8.32	32.11	3.10		
17/ 79/ 1	81.73	2.32	39.56	0.14		
18/ 79/ 1	70.53	-42.05	47.70	8.58		
18/ 116/ 1	26.27	1.14	0.18	12.39		
19/ 116/ 1	33.48	-7.46	8.08	12.39		
19/ 150/ 1	65.07	-40.67	34.31	18.56		
20/ 150/ 1	64.85	-58.58	34.52	27.19		
20/ 195/ 1	32.07	-28.23	17.58	12.57		
21/ 5/ 1	58.25	58.25	0.0	-0.00		
21/ 45/ 1	83.32	31.18	22.04	4.04		
22/ 45/ 1	78.88	14.21	30.46	1.87		
22/ 80/ 1	85.22	4.86	36.60	3.58		
23/ 80/ 1	41.03	-6.82	18.93	5.00		
23/ 293/ 1	33.18	-0.05	6.45	10.17		
24/ 293/ 1	33.18	-0.05	6.45	10.17		
24/ 151/ 1	45.96	-14.44	12.28	17.92		
25/ 151/ 1	65.80	-59.04	33.12	29.30		
25/ 196/ 1	31.22	-26.90	18.36	10.69		
26/ 6/ 1	51.70	51.70	0.0	0.0		
26/ 46/ 1	77.37	24.03	21.50	5.17		
27/ 46/ 1	87.73	-7.89	29.68	18.12		
27/ 82/ 1	112.95	-36.12	32.81	41.73		
28/ 295/ 1	54.66	-29.44	0.01	42.05		
28/ 117/ 1	39.11	-14.96	3.20	23.83		
29/ 117/ 1	35.77	-12.38	0.24	23.84		
29/ 152/ 1	31.95	-10.18	18.17	2.89		
30/ 152/ 1	61.64	-49.77	28.35	27.35		

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures					
	Calc. by: 5.1.2e		Date: 18/08/22		App'd by: 5.1.2e	
				Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)
30/ 197/ 1	61.25	-51.82	18.39	38.14	
31/ 7/ 1	20.19	20.19	0.0	0.0	
31/ 47/ 1	48.14	-9.76	25.01	3.93	
32/ 41/ 1	47.32	-27.35	36.15	0.86	
32/ 59/ 1	12.53	7.07	2.61	0.15	
33/ 59/ 1	16.40	-0.17	8.17	0.14	
33/ 89/ 1	35.74	-20.87	27.16	1.46	
34/ 32/ 1	12.96	6.73	1.61	1.09	
34/ 62/ 1	13.80	4.87	3.07	1.02	
35/ 62/ 1	18.69	-1.71	9.01	1.52	
35/ 90/ 1	37.01	-21.47	27.14	2.67	
36/ 47/ 1	53.48	-29.42	35.57	7.49	
36/ 60/ 1	12.01	7.98	1.63	0.50	
37/ 60/ 1	15.54	1.24	6.80	0.45	
37/ 83/ 1	38.94	-28.77	25.61	5.99	
39/ 36/ 1	18.88	-0.25	4.89	3.40	
39/ 61/ 1	13.48	6.59	3.38	0.04	
40/ 61/ 1	19.56	-2.73	11.09	0.07	
40/ 96/ 1	41.84	-30.88	29.17	5.23	
42/ 17/ 1	15.58	-0.18	1.56	6.32	
42/ 32/ 1	7.05	6.34	0.23	0.13	
44/ 15/ 1	50.80	28.80	1.72	9.28	
44/ 33/ 1	38.91	27.09	0.12	5.79	
45/ 33/ 1	39.78	39.78	0.0	0.0	
45/ 104/ 1	52.96	23.66	0.51	14.14	
46/ 104/ 1	26.61	21.12	1.41	1.33	
46/ 111/ 1	23.55	23.26	0.07	0.08	
47/ 111/ 1	23.38	23.38	0.0	0.0	
47/ 143/ 1	25.51	25.51	0.00	0.00	
48/ 143/ 1	25.51	25.51	0.0	0.0	
48/ 172/ 1	15.26	10.48	0.33	2.07	
49/ 172/ 1	15.28	10.42	0.27	2.16	
49/ 189/ 1	27.84	-3.85	2.29	13.55	
50/ 189/ 1	15.14	5.69	1.72	3.00	
50/ 215/ 1	25.81	-9.85	0.59	17.25	
51/ 10/ 1	47.92	9.28	1.85	17.47	
51/ 35/ 1	37.49	8.65	0.15	14.27	
52/ 35/ 1	29.48	29.48	0.0	0.0	
52/ 98/ 1	63.04	-7.03	0.59	34.44	
53/ 98/ 1	75.37	22.77	0.06	26.24	
53/ 114/ 1	48.73	48.48	0.00	0.12	
54/ 114/ 1	48.58	48.58	0.0	0.0	
54/ 147/ 1	51.33	51.33	0.00	0.00	
55/ 147/ 1	51.33	51.33	0.0	0.0	
55/ 176/ 1	29.55	12.01	1.54	7.24	
56/ 176/ 1	29.79	11.69	1.58	7.47	
56/ 192/ 1	31.73	8.12	1.34	10.47	
57/ 192/ 1	15.36	7.63	2.06	1.81	
57/ 219/ 1	29.57	-10.17	0.86	19.00	
58/ 8/ 1	63.00	14.18	3.50	20.91	
58/ 36/ 1	53.20	21.98	0.70	14.91	
60/ 18/ 1	57.77	-2.67	2.75	27.47	

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	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)
60/ 27/ 1	46.67	6.99	3.81	16.02	
61/ 27/ 1	49.16	6.72	3.92	17.30	
61/ 296/ 1	48.21	-0.83	2.18	22.34	
62/ 296/ 1	48.21	-0.83	2.18	22.34	
62/ 136/ 1	36.72	8.79	6.30	7.66	
63/ 136/ 1	42.48	-2.58	14.87	7.66	
63/ 163/ 1	40.06	-1.78	16.70	4.21	
64/ 163/ 1	45.09	-9.72	20.37	7.04	
64/ 181/ 1	21.97	12.02	4.24	0.73	
65/ 181/ 1	27.36	5.02	10.43	0.74	
65/ 210/ 1	54.86	-23.78	28.05	11.27	
66/ 210/ 1	27.27	11.12	0.00	8.08	
66/ 221/ 1	18.93	18.93	0.00	0.00	
67/ 19/ 1	40.75	19.15	5.89	4.91	
67/ 26/ 1	38.08	20.37	4.45	4.40	
68/ 26/ 1	36.75	21.20	3.19	4.59	
68/ 70/ 1	36.70	18.50	4.32	4.78	
69/ 70/ 1	32.31	16.48	0.86	7.06	
69/ 135/ 1	47.80	-0.88	5.48	18.86	
70/ 135/ 1	56.01	-13.33	15.81	18.86	
70/ 164/ 1	68.75	-27.69	18.16	30.06	
71/ 164/ 1	68.94	-29.14	19.93	29.11	
71/ 182/ 1	54.22	-15.81	2.42	32.59	
72/ 182/ 1	61.59	-25.00	10.69	32.61	
72/ 209/ 1	64.67	-29.39	26.68	20.35	
73/ 209/ 1	37.98	0.41	0.00	18.78	
73/ 220/ 1	18.93	18.93	0.00	0.00	
74/ 21/ 1	92.92	21.14	6.83	29.06	
74/ 28/ 1	78.58	34.03	7.08	15.19	
75/ 28/ 1	78.23	33.87	6.98	15.19	
75/ 72/ 1	66.98	42.37	7.20	5.11	
76/ 72/ 1	88.42	49.63	0.80	18.60	
76/ 140/ 1	84.44	51.73	9.43	6.92	
77/ 140/ 1	87.34	52.19	10.66	6.92	
77/ 166/ 1	95.43	42.49	19.83	6.64	
78/ 166/ 1	99.55	44.00	18.27	9.51	
78/ 184/ 1	73.74	68.42	2.04	0.62	
79/ 184/ 1	81.96	60.33	10.18	0.63	
79/ 211/ 1	99.25	41.73	19.03	9.73	
80/ 211/ 1	95.14	80.86	0.0	7.14	
80/ 222/ 1	87.73	87.73	0.00	0.00	
81/ 20/ 1	77.24	47.75	10.78	3.97	
81/ 29/ 1	74.88	48.67	8.29	4.81	
82/ 29/ 1	73.36	49.65	7.04	4.81	
82/ 73/ 1	76.29	43.97	7.54	8.62	
83/ 73/ 1	81.82	64.88	0.78	7.69	
83/ 139/ 1	94.36	50.47	8.38	13.56	
84/ 139/ 1	95.87	50.34	9.20	13.57	
84/ 165/ 1	116.41	28.18	19.22	24.89	
85/ 165/ 1	116.59	32.17	18.42	23.79	
85/ 183/ 1	104.06	43.31	2.49	27.89	
86/ 183/ 1	112.33	34.82	10.85	27.90	

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	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)
86/ 212/ 1	110.98	34.86	19.73	18.34	
87/ 212/ 1	105.43	70.57	0.00	17.43	
87/ 223/ 1	87.73	87.73	0.00	0.00	
88/ 22/ 1	77.56	17.61	9.73	20.25	
88/ 40/ 1	59.13	18.07	4.86	15.67	
89/ 40/ 1	57.30	20.01	4.86	13.78	
89/ 63/ 1	83.18	-7.75	2.29	43.18	
90/ 63/ 1	92.95	-4.00	2.29	46.18	
90/ 106/ 1	88.84	-2.65	6.87	38.88	
91/ 106/ 1	77.80	22.47	6.87	20.80	
91/ 169/ 1	53.89	20.31	13.54	3.25	
92/ 169/ 1	36.24	4.27	13.54	2.45	
92/ 226/ 1	82.39	-47.18	0.00	64.78	
93/ 23/ 1	96.42	42.89	14.23	12.53	
93/ 301/ 1	69.45	48.29	5.72	4.87	
94/ 301/ 1	69.17	48.57	5.72	4.58	
94/ 67/ 1	88.79	27.08	4.07	26.78	
95/ 67/ 1	100.95	15.81	4.07	38.50	
95/ 110/ 1	93.00	21.44	5.71	30.08	
96/ 110/ 1	90.19	13.69	5.71	32.54	
96/ 171/ 1	74.99	7.47	14.59	19.17	
97/ 171/ 1	57.27	-17.68	14.59	22.88	
97/ 224/ 1	79.18	-44.18	0.00	61.68	
98/ 41/ 1	15.15	-21.25	17.91	0.29	
98/ 32/ 1	-3.49	-3.49	0.00	0.00	
99/ 42/ 1	22.95	-23.76	22.78	0.57	
99/ 55/ 1	-0.58	-0.58	0.00	0.00	
100/ 43/ 1	22.69	-23.43	22.54	0.52	
100/ 53/ 1	-0.13	-0.13	0.00	0.00	
101/ 44/ 1	22.27	-23.09	22.43	0.26	
101/ 34/ 1	0.04	0.04	0.00	0.0	
102/ 45/ 1	20.95	-21.71	21.33	0.01	
102/ 51/ 1	-0.18	-0.18	0.00	0.0	
103/ 46/ 1	20.52	-21.20	20.79	0.07	
103/ 49/ 1	-0.46	-0.46	0.00	0.00	
104/ 47/ 1	17.15	-23.27	17.60	2.61	
104/ 36/ 1	-3.22	-3.22	0.00	0.00	
105/ 41/ 1	6.68	-4.46	1.48	4.09	
105/ 42/ 1	6.10	-3.88	1.00	3.99	
106/ 42/ 1	3.29	-7.64	0.53	4.94	
106/ 43/ 1	12.02	-16.37	9.33	4.87	
107/ 43/ 1	13.07	-17.39	12.01	3.22	
107/ 44/ 1	16.56	-20.88	15.49	3.22	
108/ 44/ 1	5.50	-10.64	7.33	0.74	
108/ 45/ 1	9.48	-14.62	11.35	0.69	
109/ 45/ 1	11.65	-17.79	13.92	0.79	
109/ 46/ 1	21.19	-27.33	23.51	0.75	
110/ 46/ 1	27.02	-26.59	26.54	0.27	
110/ 47/ 1	27.18	-26.75	26.28	0.68	
111/ 32/ 1	1.39	-4.64	0.02	2.99	
111/ 55/ 1	8.73	-11.98	6.05	4.31	
112/ 55/ 1	9.23	-11.47	6.05	4.31	

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	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
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Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)
112/ 33/ 1	19.66	-21.90	11.39	9.39	
113/ 33/ 1	1.61	-15.83	3.43	5.29	
113/ 53/ 1	17.13	-31.34	21.19	3.04	
114/ 53/ 1	17.28	-31.19	21.19	3.04	
114/ 34/ 1	15.51	-29.43	22.31	0.16	
115/ 34/ 1	8.96	-32.97	20.73	0.23	
115/ 51/ 1	4.11	-28.13	12.59	3.53	
116/ 51/ 1	4.15	-28.09	12.59	3.53	
116/ 35/ 1	16.44	-40.37	20.34	8.06	
117/ 35/ 1	-16.28	-26.90	0.26	5.05	
117/ 49/ 1	-5.37	-37.80	11.23	4.98	
118/ 49/ 1	-5.38	-37.81	11.23	4.98	
118/ 36/ 1	3.49	-46.69	21.16	3.92	
119/ 59/ 1	17.66	-1.88	9.45	0.32	
119/ 62/ 1	20.42	-4.64	5.21	7.32	
120/ 60/ 1	17.05	-1.06	7.38	1.67	
120/ 61/ 1	14.98	1.01	6.75	0.23	
121/ 89/ 1	24.33	-22.75	23.44	0.10	
121/ 90/ 1	24.56	-22.98	23.56	0.21	
122/ 76/ 1	10.74	-9.43	9.80	0.28	
122/ 105/ 1	-4.40	-4.40	0.00	0.0	
123/ 78/ 1	21.65	-22.17	21.82	0.09	
123/ 103/ 1	1.53	1.53	0.00	0.00	
124/ 79/ 1	21.99	-23.24	22.60	0.01	
124/ 101/ 1	-0.26	-0.26	0.00	0.00	
125/ 80/ 1	14.77	-14.10	14.38	0.05	
125/ 99/ 1	0.02	0.02	0.00	0.0	
126/ 82/ 1	9.28	-8.10	8.50	0.19	
126/ 97/ 1	0.04	0.04	0.00	0.00	
127/ 83/ 1	22.70	-21.19	21.88	0.07	
127/ 96/ 1	25.87	-24.36	24.98	0.13	
128/ 76/ 1	234.67	-219.53	212.74	14.36	
128/ 78/ 1	113.92	-110.48	108.42	3.79	
129/ 78/ 1	13.58	-13.70	12.97	0.67	
129/ 79/ 1	22.77	-22.90	22.25	0.58	
130/ 79/ 1	20.39	-21.17	19.55	1.23	
130/ 80/ 1	27.21	-28.00	26.55	1.05	
131/ 80/ 1	30.91	-31.47	29.82	1.37	
131/ 82/ 1	243.60	-237.44	230.85	9.66	
132/ 89/ 1	2.46	-2.41	2.23	0.21	
132/ 88/ 1	21.19	-21.14	20.80	0.37	
133/ 84/ 1	1.97	-1.10	1.48	0.05	
133/ 83/ 1	24.25	-23.38	23.76	0.06	
134/ 90/ 1	6.33	-6.35	5.76	0.58	
134/ 91/ 1	14.33	-14.35	12.94	1.40	
135/ 95/ 1	4.36	-4.33	3.87	0.47	
135/ 96/ 1	20.67	-20.64	20.46	0.20	
136/ 105/ 1	3.08	-4.98	3.73	0.30	
136/ 104/ 1	168.82	-170.72	29.93	139.84	
137/ 104/ 1	129.74	-129.05	42.14	87.25	
137/ 103/ 1	56.74	-56.05	31.91	24.49	
138/ 103/ 1	56.89	-55.89	31.91	24.49	

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Ref.	Calculations					Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)
138/ 101/ 1	59.03	-58.10	43.94	14.63	
139/ 101/ 1	58.27	-32.13	43.92	1.28	
139/ 99/ 1	38.23	-11.86	24.60	0.45	
140/ 99/ 1	38.10	-11.98	24.60	0.45	
140/ 98/ 1	23.95	2.17	9.16	1.73	
141/ 98/ 1	52.60	-15.96	32.88	1.39	
141/ 97/ 1	44.89	-8.25	26.55	0.02	
142/ 148/ 1	30.34	-34.33	20.49	11.85	
142/ 162/ 1	-2.00	-2.00	0.00	0.00	
143/ 152/ 1	32.23	-27.13	19.69	9.99	
143/ 158/ 1	2.55	2.55	0.00	0.00	
144/ 149/ 1	24.15	-22.49	15.32	8.01	
144/ 161/ 1	0.83	0.83	0.0	0.00	
145/ 151/ 1	21.01	-21.73	13.64	7.73	
145/ 159/ 1	-0.36	-0.36	0.0	0.00	
146/ 150/ 1	120.70	-119.93	74.16	46.16	
146/ 160/ 1	0.76	0.76	0.00	0.00	
147/ 148/ 1	128.72	-110.97	68.97	50.87	
147/ 149/ 1	163.07	-145.31	96.68	57.51	
148/ 149/ 1	112.62	-88.24	65.42	35.01	
148/ 150/ 1	170.47	-146.09	71.56	86.72	
149/ 150/ 1	161.30	-143.11	57.20	95.00	
149/ 151/ 1	115.94	-97.76	63.44	43.41	
150/ 151/ 1	116.11	-87.81	56.09	45.87	
150/ 152/ 1	113.92	-85.62	58.62	41.15	
156/ 193/ 1	133.60	-94.75	33.43	80.75	
156/ 194/ 1	236.29	-197.44	92.44	124.42	
157/ 194/ 1	206.92	-180.00	86.86	106.60	
157/ 195/ 1	216.10	-189.18	94.82	107.82	
158/ 195/ 1	207.29	-192.80	84.56	115.49	
158/ 196/ 1	212.81	-198.32	93.08	112.49	
159/ 196/ 1	188.52	-186.87	56.08	131.62	
159/ 197/ 1	108.08	-106.43	16.94	90.31	
160/ 202/ 1	141.64	-198.58	54.17	84.30	
160/ 203/ 1	15.85	-6.48	5.60	7.08	
161/ 203/ 1	15.08	-7.34	5.63	7.10	
161/ 204/ 1	39.13	-31.88	30.85	5.93	
162/ 204/ 1	38.19	-32.92	30.84	6.00	
162/ 205/ 1	4.82	-1.45	1.90	1.57	
163/ 205/ 1	4.51	-1.77	1.87	1.62	
163/ 206/ 1	148.30	-108.20	58.53	88.75	
164/ 189/ 1	78.68	-74.82	22.10	54.65	
164/ 190/ 1	26.38	-22.53	13.96	10.49	
165/ 190/ 1	25.27	-48.55	12.22	24.69	
165/ 191/ 1	16.55	-39.84	9.00	19.20	
166/ 191/ 1	27.87	-8.21	12.08	5.96	
166/ 192/ 1	87.70	-68.04	27.71	50.16	
167/ 215/ 1	108.71	-65.16	36.49	50.45	
167/ 216/ 1	54.24	-10.69	8.47	24.00	
168/ 216/ 1	49.54	-11.45	7.83	22.66	
168/ 217/ 1	40.33	-2.23	20.38	0.90	
169/ 217/ 1	38.35	-4.86	20.27	1.33	

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures					
	Calc. by: 5.1.2e		Date: 18/08/22		App'd by: 5.1.2e	
				Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)
169/ 218/ 1	46.35	-12.86	7.65	21.96	
170/ 218/ 1	50.07	-11.60	8.30	22.54	
170/ 219/ 1	96.42	-57.95	40.71	36.48	
171/ 24/ 1	1.87	-28.97	5.15	10.27	
171/ 27/ 1	-9.20	-17.90	2.87	1.49	
172/ 27/ 1	6.79	-24.98	8.25	7.64	
172/ 28/ 1	0.85	-19.04	0.67	9.27	
173/ 28/ 1	6.09	-28.41	0.32	16.93	
173/ 31/ 1	18.23	-40.55	5.45	23.95	
174/ 25/ 1	-5.51	-16.52	3.05	2.46	
174/ 26/ 1	-2.73	-19.31	4.63	3.66	
175/ 26/ 1	-4.18	-17.89	5.64	1.22	
175/ 29/ 1	-7.53	-14.53	3.37	0.13	
176/ 29/ 1	-7.64	-19.59	1.01	4.96	
176/ 30/ 1	-1.66	-25.58	7.00	4.96	
177/ 68/ 1	48.73	-48.45	3.42	45.17	
177/ 71/ 1	56.00	-55.71	9.45	46.40	
178/ 71/ 1	75.05	-60.61	18.81	49.01	
178/ 72/ 1	73.63	-59.19	14.48	51.93	
179/ 72/ 1	55.25	-55.88	8.40	47.17	
179/ 75/ 1	21.88	-22.50	5.45	16.74	
180/ 69/ 1	4.34	-3.45	3.56	0.34	
180/ 70/ 1	20.10	-19.21	8.93	10.73	
181/ 70/ 1	24.94	-8.90	14.02	2.90	
181/ 73/ 1	25.35	-9.32	9.49	7.85	
182/ 73/ 1	5.30	-6.90	3.99	2.11	
182/ 74/ 1	6.16	-7.75	2.49	4.47	
183/ 132/ 1	15.70	-31.91	13.23	10.57	
183/ 136/ 1	47.95	-64.16	18.21	37.84	
184/ 136/ 1	61.39	-86.76	11.78	62.30	
184/ 140/ 1	79.90	-88.55	23.24	60.98	
185/ 140/ 1	71.17	-76.64	27.53	46.37	
185/ 141/ 1	71.58	-77.04	32.91	41.40	
186/ 134/ 1	6.20	-24.86	15.53	0.00	
186/ 135/ 1	14.63	-33.29	20.25	3.71	
187/ 135/ 1	24.24	-48.22	15.89	20.34	
187/ 139/ 1	36.54	-53.55	21.43	23.62	
188/ 139/ 1	49.99	-59.17	24.28	30.30	
188/ 142/ 1	49.84	-59.02	29.36	25.07	
189/ 162/ 1	148.67	-170.41	1.72	157.83	
189/ 163/ 1	119.23	-140.97	9.89	120.21	
190/ 166/ 1	107.81	-129.86	15.68	103.16	
190/ 167/ 1	123.43	-145.47	20.29	114.16	
191/ 158/ 1	39.00	-49.93	4.05	40.42	
191/ 164/ 1	31.18	-42.12	15.01	21.64	
192/ 165/ 1	16.04	-36.15	11.61	14.49	
192/ 168/ 1	38.93	-59.03	16.41	32.57	
193/ 163/ 1	69.23	-130.83	19.17	65.98	
193/ 166/ 1	79.74	-86.43	15.19	80.47	
194/ 164/ 1	34.87	-76.37	17.72	30.02	
194/ 165/ 1	40.47	-52.59	13.44	39.91	
195/ 177/ 1	251.63	-251.89	7.15	244.62	

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures				Sheet No./rev.:	
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)
195/ 181/ 1	147.85	-154.33	7.08	144.02	
196/ 181/ 1	155.17	-164.90	44.28	115.75	
196/ 184/ 1	127.81	-137.54	36.73	95.94	
197/ 184/ 1	142.34	-154.22	6.04	142.24	
197/ 188/ 1	202.99	-213.29	10.80	197.34	
198/ 178/ 1	181.19	-181.76	5.50	175.98	
198/ 182/ 1	88.69	-91.26	2.30	87.68	
199/ 182/ 1	112.39	-118.44	43.59	71.83	
199/ 183/ 1	84.67	-90.73	35.48	52.22	
200/ 183/ 1	82.20	-90.57	11.21	75.18	
200/ 187/ 1	146.75	-155.82	6.97	144.31	
201/ 207/ 1	290.49	-280.15	3.31	282.01	
201/ 210/ 1	218.97	-208.63	13.29	200.51	
202/ 210/ 1	215.68	-171.14	72.79	120.61	
202/ 211/ 1	187.38	-142.85	77.98	87.14	
203/ 211/ 1	224.61	-217.83	37.36	183.86	
203/ 214/ 1	247.47	-240.70	22.51	221.58	
204/ 208/ 1	286.81	-283.81	0.05	285.26	
204/ 209/ 1	251.29	-248.29	17.30	232.48	
205/ 209/ 1	180.47	-151.05	73.83	91.93	
205/ 212/ 1	137.23	-107.82	76.36	46.16	
206/ 212/ 1	277.66	-278.22	34.15	243.79	
206/ 213/ 1	309.93	-310.50	23.09	287.12	
207/ 162/ 1	121.40	-118.73	5.28	114.79	
207/ 161/ 1	28.34	-25.67	11.25	15.75	
208/ 161/ 1	28.43	-25.57	11.25	15.75	
208/ 160/ 1	17.55	-14.69	8.61	7.51	
209/ 160/ 1	34.64	2.79	8.62	7.31	
209/ 159/ 1	33.99	3.44	1.79	13.48	
210/ 159/ 1	34.02	3.47	1.79	13.48	
210/ 158/ 1	84.76	-47.27	11.30	54.71	
211/ 40/ 1	13.25	-35.52	6.81	17.58	
211/ 39/ 1	-0.15	-22.11	1.81	9.17	
212/ 39/ 1	31.11	4.13	0.61	12.88	
212/ 38/ 1	26.98	8.26	8.08	1.28	
213/ 38/ 1	14.80	-3.24	6.66	2.36	
213/ 301/ 1	17.57	-6.01	1.02	10.77	
214/ 63/ 1	60.86	-43.42	10.84	41.30	
214/ 64/ 1	79.65	-62.21	37.92	33.01	
215/ 64/ 1	85.69	-67.24	43.44	33.03	
215/ 65/ 1	46.65	-28.19	29.34	8.08	
216/ 65/ 1	10.12	-47.77	20.88	8.07	
216/ 66/ 1	-5.13	-32.51	0.37	13.32	
217/ 66/ 1	-1.99	-35.11	3.24	13.32	
217/ 67/ 1	44.11	-81.21	42.23	20.43	
218/ 106/ 1	122.03	-118.38	65.15	55.05	
218/ 107/ 1	61.32	-57.67	15.40	44.10	
219/ 107/ 1	67.04	-64.40	21.64	44.08	
219/ 108/ 1	30.61	-27.97	18.01	11.28	
220/ 108/ 1	21.39	-20.22	9.52	11.29	
220/ 109/ 1	47.96	-46.79	25.89	21.48	
221/ 109/ 1	44.96	-44.34	23.17	21.48	

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
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	Calc. by: 5.1.2e		Date: 18/08/22		App'd by: 5.1.2e	
				Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)
221/ 110/ 1	41.61	-40.98	8.87	32.42	
222/ 169/ 1	76.57	-131.93	2.17	102.08	
222/ 170/ 1	-11.55	-43.80	8.76	7.36	
223/ 170/ 1	-22.81	-82.61	7.89	22.02	
223/ 171/ 1	29.92	-135.34	9.98	72.65	
224/ 226/ 1	239.27	-217.69	116.89	111.58	
224/ 225/ 1	155.76	-134.18	139.20	5.76	
225/ 225/ 1	161.95	-156.34	139.11	20.03	
225/ 224/ 1	199.86	-194.25	111.30	85.76	
226/ 221/ 1	1.11	1.11	0.0	0.0	
226/ 220/ 1	1.11	1.11	0.00	0.00	
227/ 222/ 1	1.03	1.03	0.0	0.0	
227/ 223/ 1	1.03	1.03	0.00	0.00	
230/ 63/ 1	57.67	57.67	0.0	0.0	
230/ 39/ 1	65.14	52.08	2.90	3.64	
231/ 38/ 1	30.94	4.12	13.26	0.15	
231/ 67/ 1	16.59	16.59	0.0	0.00	
232/ 39/ 1	-19.71	-39.68	9.40	0.59	
232/ 65/ 1	-30.63	-30.63	0.00	0.00	
233/ 65/ 1	39.53	39.53	0.0	0.0	
233/ 38/ 1	43.21	37.74	2.55	0.19	
234/ 64/ 1	51.39	-39.12	0.01	45.25	
234/ 107/ 1	56.62	-45.80	0.00	51.21	
235/ 66/ 1	35.91	-23.38	0.00	29.64	
235/ 109/ 1	27.90	-16.82	0.01	22.35	
236/ 65/ 1	71.97	-66.85	0.00	69.41	
236/ 108/ 1	71.57	-67.90	0.00	69.73	
237/ 106/ 1	-27.22	-27.22	0.0	0.0	
237/ 170/ 1	-7.58	-49.54	14.61	6.37	
238/ 170/ 1	56.61	7.48	19.20	5.36	
238/ 110/ 1	33.39	33.39	0.0	0.00	
239/ 169/ 1	83.94	83.94	0.0	0.0	
239/ 225/ 1	102.63	62.32	13.16	7.00	
240/ 225/ 1	125.72	84.40	13.89	6.77	
240/ 171/ 1	106.52	106.52	0.00	0.00	
241/ 24/ 1	21.77	21.77	0.0	0.0	
241/ 71/ 1	48.62	-7.84	3.93	24.30	
242/ 72/ 1	54.38	0.54	0.51	26.41	
242/ 31/ 1	28.84	28.84	0.0	0.00	
243/ 25/ 1	16.81	16.81	0.0	0.0	
243/ 70/ 1	15.43	15.43	0.00	0.0	
244/ 73/ 1	34.01	34.01	0.0	0.0	
244/ 30/ 1	35.39	35.39	0.0	0.0	
245/ 132/ 1	51.38	6.52	0.00	22.43	
245/ 71/ 1	52.32	7.47	10.28	12.14	
246/ 72/ 1	14.29	-25.10	1.86	17.84	
246/ 141/ 1	10.25	-22.94	7.89	8.71	
247/ 136/ 1	25.81	25.81	0.0	0.0	
247/ 166/ 1	97.34	-47.33	0.83	71.50	
248/ 163/ 1	66.66	-79.30	4.15	68.83	
248/ 140/ 1	-5.51	-5.51	0.00	0.00	
249/ 134/ 1	34.80	34.80	0.0	0.0	

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
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	Calc. by: 5.1.2e		Date: 18/08/22		App'd by: 5.1.2e	
				Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)
249/ 70/ 1	52.60	18.87	13.66	3.21	
250/ 73/ 1	15.89	-9.51	12.66	0.04	
250/ 142/ 1	2.25	2.25	0.00	0.00	
251/ 135/ 1	19.80	19.80	0.0	0.0	
251/ 165/ 1	47.93	-9.95	2.22	26.73	
252/ 164/ 1	31.90	-27.25	9.78	19.79	
252/ 139/ 1	3.13	3.13	0.0	0.0	
253/ 71/ 1	29.51	11.50	0.80	8.21	
253/ 137/ 1	32.33	6.80	7.95	4.81	
254/ 137/ 1	-6.42	-17.38	0.34	5.14	
254/ 72/ 1	-1.63	-20.29	2.47	6.86	
255/ 70/ 1	24.34	-1.34	1.03	11.80	
255/ 138/ 1	18.94	2.18	8.20	0.19	
256/ 138/ 1	-0.35	-4.67	0.09	2.07	
256/ 73/ 1	8.11	-11.25	1.59	8.09	
257/ 162/ 1	21.10	21.10	0.0	0.0	
257/ 180/ 1	69.53	-28.73	0.41	48.72	
258/ 180/ 1	63.43	-17.26	0.96	39.38	
258/ 210/ 1	68.59	-23.73	5.25	40.91	
260/ 211/ 1	82.55	11.81	3.70	31.67	
260/ 185/ 1	82.90	12.77	2.60	32.47	
261/ 185/ 1	88.29	4.34	0.84	41.14	
261/ 167/ 1	47.01	47.01	0.0	0.00	
262/ 207/ 1	52.75	-76.94	0.37	64.47	
262/ 180/ 1	11.90	-34.79	1.59	21.75	
263/ 185/ 1	20.71	-17.85	2.28	17.00	
263/ 214/ 1	43.36	-41.80	0.00	42.58	
264/ 158/ 1	16.13	16.13	0.0	0.0	
264/ 179/ 1	86.89	-56.01	0.07	71.38	
265/ 179/ 1	81.82	-49.45	0.28	65.35	
265/ 209/ 1	48.38	-17.31	6.42	26.42	
266/ 212/ 1	59.61	19.22	7.41	12.78	
266/ 186/ 1	98.77	-18.62	2.42	56.28	
267/ 186/ 1	98.15	-18.85	0.25	58.25	
267/ 168/ 1	40.34	40.34	0.00	0.00	
268/ 208/ 1	49.39	-57.61	0.52	52.98	
268/ 179/ 1	41.51	-48.42	0.67	44.30	
269/ 186/ 1	43.37	-31.41	0.59	36.80	
269/ 213/ 1	30.25	-19.60	0.17	24.75	
270/ 16/ 1	21.90	3.54	9.13	0.05	
270/ 33/ 1	13.78	9.65	1.86	0.20	
271/ 33/ 1	47.01	41.21	2.87	0.03	
271/ 14/ 1	48.42	41.79	3.04	0.27	
272/ 13/ 1	12.39	-7.87	9.66	0.47	
272/ 34/ 1	6.76	-4.25	5.49	0.02	
273/ 34/ 1	37.77	19.26	9.25	0.00	
273/ 12/ 1	33.11	25.93	2.53	1.06	
274/ 11/ 1	10.78	-9.75	10.25	0.01	
274/ 35/ 1	1.11	-2.09	1.51	0.09	
275/ 35/ 1	50.62	37.46	6.35	0.23	
275/ 9/ 1	47.29	42.78	2.00	0.25	
276/ 32/ 1	0.33	0.33	0.0	0.0	

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	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)
276/ 57/ 1	8.78	-8.98	8.86	0.02	
277/ 57/ 1	9.04	-8.67	8.83	0.02	
277/ 105/ 1	4.76	-6.52	5.63	0.01	
278/ 97/ 1	69.74	-10.45	40.10	0.00	
278/ 58/ 1	46.14	15.29	15.42	0.01	
279/ 58/ 1	46.56	15.95	15.30	0.01	
279/ 36/ 1	31.69	31.69	-0.00	0.00	
280/ 57/ 1	21.85	16.99	1.31	1.12	
280/ 33/ 1	27.05	12.64	6.64	0.56	
281/ 35/ 1	-26.35	-38.37	5.71	0.30	
281/ 58/ 1	-24.63	-40.96	8.16	0.00	
283/ 162/ 1	25.08	-24.49	1.80	22.99	
283/ 112/ 1	1.18	1.18	0.00	0.00	
284/ 112/ 1	24.26	9.83	4.44	2.78	
284/ 101/ 1	36.02	-1.01	9.87	8.64	
285/ 101/ 1	-15.80	-52.45	10.49	7.84	
285/ 113/ 1	-21.81	-47.37	12.35	0.42	
286/ 113/ 1	-72.50	-72.50	0.0	0.0	
286/ 158/ 1	-44.66	-102.11	0.00	28.72	
287/ 111/ 1	23.27	6.05	2.41	6.20	
287/ 112/ 1	26.92	2.41	2.85	9.40	
288/ 113/ 1	27.16	12.87	5.14	2.00	
288/ 114/ 1	27.31	12.72	6.46	0.83	
289/ 104/ 1	31.58	-1.81	0.63	16.06	
289/ 112/ 1	19.73	9.11	2.83	2.48	
290/ 112/ 1	-16.20	-33.00	6.56	1.85	
290/ 102/ 1	-21.94	-26.33	0.03	2.17	
291/ 100/ 1	-53.09	-76.40	0.00	11.66	
291/ 113/ 1	-55.60	-74.81	0.22	9.38	
292/ 113/ 1	34.59	14.32	9.00	1.13	
292/ 98/ 1	31.83	18.01	6.08	0.84	
293/ 189/ 1	10.05	-16.58	0.73	12.58	
293/ 173/ 1	14.10	-19.42	0.60	16.16	
294/ 173/ 1	31.40	-12.76	0.81	21.27	
294/ 160/ 1	9.81	9.81	0.00	0.00	
295/ 160/ 1	-24.12	-24.12	0.0	0.0	
295/ 175/ 1	-5.79	-43.43	6.17	12.65	
296/ 175/ 1	-16.70	-48.52	7.21	8.70	
296/ 192/ 1	-20.45	-45.96	1.13	11.63	
297/ 172/ 1	74.98	-42.91	0.47	58.47	
297/ 173/ 1	30.81	1.27	0.23	14.54	
298/ 175/ 1	-10.85	-25.73	0.50	6.95	
298/ 176/ 1	18.60	-55.18	4.56	32.33	
299/ 162/ 1	10.13	10.13	0.0	0.0	
299/ 173/ 1	13.91	5.36	1.62	2.66	
300/ 173/ 1	-4.50	-31.89	13.56	0.13	
300/ 161/ 1	-17.70	-17.70	0.00	0.00	
301/ 159/ 1	-22.76	-22.76	0.0	0.0	
301/ 175/ 1	-14.10	-32.40	8.58	0.57	
302/ 175/ 1	22.44	15.40	2.31	1.21	
302/ 158/ 1	19.41	19.41	0.0	0.00	
303/ 215/ 1	0.71	-41.79	0.65	20.61	

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
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	Calc. by: 5.1.2e		Date: 18/08/22		App'd by: 5.1.2e	
				Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)
303/ 190/ 1	-8.32	-31.71	1.89	9.81	
304/ 191/ 1	-16.10	-41.05	5.65	6.82	
304/ 219/ 1	-6.65	-51.55	0.22	22.23	
305/ 216/ 1	40.48	-0.70	6.36	14.22	
305/ 190/ 1	33.18	7.66	12.51	0.25	
306/ 190/ 1	41.23	22.64	0.04	9.25	
306/ 217/ 1	35.12	27.70	0.12	3.59	
307/ 217/ 1	59.00	49.23	2.36	2.52	
307/ 191/ 1	58.12	51.15	2.24	1.25	
308/ 191/ 1	35.36	-1.17	17.62	0.64	
308/ 218/ 1	32.70	0.44	15.93	0.21	
309/ 193/ 1	55.63	-32.55	10.84	33.25	
309/ 228/ 1	24.30	-2.59	2.89	10.56	
310/ 228/ 1	27.25	0.99	2.02	11.11	
310/ 230/ 1	25.56	1.31	2.71	9.41	
311/ 230/ 1	25.07	1.58	3.10	8.65	
311/ 232/ 1	54.59	-29.31	10.57	31.38	
312/ 232/ 1	44.56	-20.65	10.60	22.01	
312/ 234/ 1	27.84	-5.30	10.73	5.83	
313/ 234/ 1	20.48	-6.55	7.65	5.86	
313/ 236/ 1	16.24	-3.68	0.08	9.88	
314/ 236/ 1	10.14	-8.27	0.07	9.13	
314/ 238/ 1	31.03	-30.35	4.80	25.89	
315/ 238/ 1	17.56	-6.22	4.72	7.17	
315/ 237/ 1	16.07	-4.42	3.70	6.55	
316/ 237/ 1	18.19	2.44	3.65	4.22	
316/ 215/ 1	10.80	10.80	0.0	0.00	
319/ 229/ 1	-11.19	-14.28	1.23	0.31	
319/ 231/ 1	-0.16	-25.66	10.84	1.91	
320/ 231/ 1	0.15	-24.61	10.83	1.55	
320/ 233/ 1	-3.26	-21.56	7.65	1.50	
321/ 233/ 1	-3.77	-18.73	6.23	1.25	
321/ 235/ 1	-5.52	-17.34	4.19	1.72	
322/ 235/ 1	0.37	-12.72	4.93	1.62	
322/ 237/ 1	3.92	-16.63	6.83	3.44	
323/ 227/ 1	25.58	-3.19	8.46	5.92	
323/ 228/ 1	20.28	1.75	5.10	4.17	
324/ 228/ 1	-5.69	-14.81	1.83	2.72	
324/ 229/ 1	-3.65	-16.85	1.12	5.48	
326/ 229/ 1	13.43	-4.35	4.03	4.87	
326/ 230/ 1	9.46	-0.73	3.18	1.91	
327/ 230/ 1	11.83	-2.75	0.07	7.23	
327/ 231/ 1	14.45	-5.37	6.02	3.89	
328/ 231/ 1	6.66	-6.24	6.11	0.34	
328/ 311/ 1	0.17	-0.06	0.06	0.06	
329/ 311/ 1	0.23	0.11	0.06	0.00	
329/ 312/ 1	2.73	-2.39	2.20	0.36	
330/ 312/ 1	2.11	-2.40	2.20	0.06	
330/ 234/ 1	9.62	-24.45	16.57	0.47	
331/ 234/ 1	27.31	10.94	8.11	0.07	
331/ 235/ 1	24.22	14.03	4.09	1.00	
332/ 235/ 1	-13.07	-16.99	1.82	0.14	

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures					
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)
332/ 236/ 1	-4.97	-25.44	1.94	8.29	
333/ 236/ 1	23.03	16.19	1.85	1.57	
333/ 237/ 1	42.69	-3.47	4.10	18.98	
334/ 194/ 1	59.92	-56.88	18.23	40.18	
334/ 240/ 1	15.58	-13.90	1.45	13.29	
335/ 240/ 1	19.57	-9.20	0.12	14.27	
335/ 242/ 1	18.98	-9.98	0.61	13.87	
336/ 242/ 1	18.23	-3.77	0.77	10.23	
336/ 244/ 1	51.60	-38.50	2.46	42.59	
337/ 244/ 1	28.76	-18.98	2.22	21.66	
337/ 246/ 1	17.96	-9.55	6.71	7.04	
338/ 246/ 1	157.21	-122.82	76.34	63.68	
338/ 248/ 1	183.42	-154.11	102.96	65.80	
339/ 248/ 1	20.63	-18.18	11.31	8.10	
339/ 250/ 1	27.24	-25.97	1.99	24.62	
340/ 250/ 1	7.30	-18.71	2.02	10.99	
340/ 249/ 1	12.37	-23.48	12.46	5.46	
341/ 249/ 1	22.70	-26.72	21.69	3.01	
341/ 216/ 1	22.89	-25.94	13.28	11.14	
344/ 239/ 1	11.41	-12.24	2.79	9.03	
344/ 241/ 1	1.66	-2.85	0.63	1.63	
345/ 241/ 1	1.05	-10.01	0.43	5.10	
345/ 243/ 1	-1.66	-7.66	2.54	0.46	
346/ 243/ 1	-1.79	-10.09	3.95	0.20	
346/ 245/ 1	20.52	-32.75	21.38	5.25	
348/ 245/ 1	27.33	-35.23	27.07	4.21	
348/ 247/ 1	-2.58	-5.67	1.33	0.21	
349/ 247/ 1	-2.57	-5.65	1.33	0.21	
349/ 249/ 1	34.88	-43.45	35.29	3.88	
350/ 239/ 1	55.68	-27.01	9.05	32.29	
350/ 240/ 1	31.14	-2.83	8.15	8.84	
351/ 240/ 1	-8.05	-20.18	2.50	3.56	
351/ 241/ 1	9.09	-37.32	1.33	21.88	
352/ 241/ 1	32.37	-9.98	0.21	20.96	
352/ 242/ 1	32.06	-10.02	0.29	20.75	
353/ 242/ 1	18.30	-32.77	1.57	23.96	
353/ 243/ 1	0.41	-14.87	4.25	3.39	
354/ 243/ 1	7.86	-7.29	7.06	0.51	
354/ 244/ 1	24.68	-24.46	4.57	20.00	
355/ 244/ 1	72.36	-52.18	6.77	55.50	
355/ 245/ 1	35.13	-14.95	17.24	7.81	
356/ 245/ 1	31.18	-35.22	28.31	4.89	
356/ 246/ 1	23.90	-28.29	22.61	3.49	
357/ 248/ 1	29.87	-7.65	12.46	6.30	
357/ 249/ 1	41.47	-19.24	9.08	21.28	
358/ 195/ 1	64.82	-60.18	25.87	36.63	
358/ 252/ 1	18.17	-14.91	3.86	12.68	
359/ 252/ 1	22.33	-8.56	1.80	13.65	
359/ 254/ 1	19.02	-6.62	1.27	11.55	
360/ 254/ 1	18.19	-0.31	1.42	7.84	
360/ 256/ 1	45.24	-28.74	0.22	36.77	
361/ 256/ 1	35.12	-19.16	0.17	26.97	

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures					
	Calc. by: 5.1.2e		Date: 18/08/22		App'd by: 5.1.2e	
		Date: 18/08/22				
Ref.	Calculations					Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)
361/ 258/ 1	15.80	-1.21	0.91	7.60	
362/ 258/ 1	13.71	-4.23	0.39	8.58	
362/ 260/ 1	17.81	-9.70	2.32	11.44	
363/ 260/ 1	12.18	-12.03	2.19	9.91	
363/ 262/ 1	33.35	-34.39	2.01	31.85	
364/ 262/ 1	4.62	-2.05	2.01	1.33	
364/ 261/ 1	8.20	-5.33	6.13	0.64	
365/ 261/ 1	24.70	-15.33	16.97	3.05	
365/ 217/ 1	5.17	5.17	0.0	0.00	
367/ 251/ 1	18.46	-21.08	9.61	10.15	
367/ 253/ 1	1.46	-4.43	1.63	1.32	
368/ 253/ 1	0.61	-12.81	1.81	4.90	
368/ 255/ 1	-2.90	-9.65	2.36	1.02	
369/ 255/ 1	-5.33	-11.02	2.02	0.82	
369/ 257/ 1	-0.70	-16.00	0.75	6.90	
370/ 257/ 1	-1.54	-12.73	0.76	4.84	
370/ 259/ 1	-3.05	-11.58	2.65	1.62	
371/ 259/ 1	0.24	-8.60	3.57	0.85	
371/ 261/ 1	9.15	-17.86	9.87	3.63	
372/ 251/ 1	65.63	-33.83	16.85	32.88	
372/ 252/ 1	37.78	-6.33	13.24	8.82	
373/ 252/ 1	-11.12	-24.90	3.30	3.58	
373/ 253/ 1	5.74	-41.75	1.04	22.71	
374/ 253/ 1	33.74	-10.06	0.45	21.45	
374/ 254/ 1	33.37	-10.04	0.31	21.40	
375/ 254/ 1	18.33	-31.82	0.84	24.23	
375/ 255/ 1	-5.45	-8.04	1.18	0.11	
376/ 255/ 1	9.82	1.28	1.49	2.77	
376/ 256/ 1	28.88	-18.14	0.11	23.40	
377/ 256/ 1	54.05	-47.49	0.53	50.24	
377/ 257/ 1	17.81	-11.25	0.46	14.07	
378/ 257/ 1	6.81	-16.55	0.52	11.15	
378/ 258/ 1	4.96	-15.06	2.06	7.95	
379/ 258/ 1	17.72	4.58	2.11	4.46	
379/ 259/ 1	17.70	4.59	2.71	3.84	
380/ 259/ 1	1.34	-19.74	4.72	5.82	
380/ 260/ 1	7.64	-26.39	3.95	13.07	
381/ 260/ 1	25.57	6.73	2.91	6.51	
381/ 261/ 1	43.78	-11.47	7.70	19.93	
382/ 196/ 1	72.20	-70.57	25.76	45.62	
382/ 264/ 1	17.74	-17.48	3.29	14.32	
383/ 264/ 1	22.56	-11.33	1.31	15.63	
383/ 266/ 1	23.00	-13.14	1.45	16.62	
384/ 266/ 1	22.36	-6.18	1.66	12.60	
384/ 268/ 1	57.09	-42.28	0.10	49.58	
385/ 268/ 1	52.73	-38.25	0.24	45.25	
385/ 270/ 1	20.11	-7.00	0.97	12.58	
386/ 270/ 1	19.90	-10.20	0.62	14.43	
386/ 272/ 1	24.03	-15.70	1.73	18.13	
387/ 272/ 1	17.61	-16.07	1.42	15.42	
387/ 314/ 1	53.91	-53.56	2.86	50.88	
388/ 314/ 1	4.18	-15.67	2.85	7.08	

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures					
	Calc. by: 5.1.2e		Date: 18/08/22		App'd by: 5.1.2e	
				Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)
388/ 273/ 1	0.07	-11.25	1.25	4.41	
389/ 273/ 1	12.63	-17.91	7.25	8.02	
389/ 218/ 1	-2.15	-2.15	0.00	0.00	
391/ 263/ 1	19.01	-16.73	7.23	10.64	
391/ 265/ 1	4.35	-2.42	1.33	2.05	
392/ 265/ 1	3.74	-11.66	1.68	6.03	
392/ 267/ 1	-1.98	-6.29	1.96	0.20	
393/ 267/ 1	-4.78	-8.10	1.55	0.11	
393/ 269/ 1	2.66	-15.90	0.80	8.48	
394/ 269/ 1	0.72	-13.13	0.75	6.17	
394/ 271/ 1	-2.57	-10.20	1.75	2.07	
395/ 271/ 1	-0.92	-6.95	2.34	0.68	
395/ 273/ 1	6.86	-15.08	5.51	5.46	
396/ 263/ 1	65.49	-32.09	14.93	33.86	
396/ 264/ 1	40.08	-7.04	12.51	11.05	
400/ 264/ 1	-9.89	-27.69	3.35	5.55	
400/ 265/ 1	7.95	-45.53	1.62	25.13	
401/ 265/ 1	38.13	-11.91	1.12	23.90	
401/ 266/ 1	36.38	-10.52	0.95	22.50	
402/ 266/ 1	19.39	-35.82	0.76	26.84	
402/ 267/ 1	-4.48	-11.96	1.32	2.42	
403/ 267/ 1	10.22	3.17	1.93	1.59	
403/ 268/ 1	18.62	-5.59	0.57	11.54	
404/ 268/ 1	65.15	-63.88	0.49	64.02	
404/ 269/ 1	17.61	-16.34	0.54	16.43	
405/ 269/ 1	9.67	-14.20	0.18	11.75	
405/ 270/ 1	12.86	-17.74	1.44	13.86	
406/ 270/ 1	18.82	-2.28	1.36	9.19	
406/ 271/ 1	17.32	-0.77	1.52	7.53	
407/ 271/ 1	5.41	-20.85	3.24	9.89	
407/ 272/ 1	17.75	-33.55	3.28	22.37	
408/ 272/ 1	26.92	0.61	0.78	12.37	
408/ 273/ 1	47.52	-19.99	3.91	29.85	
409/ 197/ 1	65.58	-46.03	11.01	44.79	
409/ 276/ 1	25.07	-6.90	2.06	13.93	
410/ 276/ 1	28.10	-4.05	1.11	14.97	
410/ 278/ 1	23.70	-1.01	0.06	12.30	
411/ 278/ 1	23.06	0.93	0.02	11.05	
411/ 280/ 1	52.02	-29.40	0.18	40.53	
412/ 280/ 1	48.73	-27.50	0.43	37.68	
412/ 282/ 1	19.16	0.70	0.43	8.80	
413/ 282/ 1	16.61	-4.29	0.24	10.21	
413/ 284/ 1	24.71	-13.76	2.17	17.06	
414/ 284/ 1	16.56	-16.43	1.76	14.74	
414/ 286/ 1	48.26	-49.33	4.06	44.73	
415/ 286/ 1	22.93	-9.79	4.05	12.30	
415/ 285/ 1	15.63	-2.18	1.52	7.39	
416/ 285/ 1	29.27	-6.72	6.56	11.44	
416/ 219/ 1	11.76	11.76	0.00	0.00	
418/ 275/ 1	-0.43	-20.71	5.98	4.16	
418/ 277/ 1	-9.56	-11.94	0.67	0.52	
419/ 277/ 1	-11.76	-14.03	0.59	0.54	

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures					
	Calc. by: 5.1.2e		Date: 18/08/22		App'd by: 5.1.2e	
				Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)
419/ 279/ 1	-6.47	-19.68	2.33	4.27	
420/ 279/ 1	-6.68	-19.10	2.30	3.90	
420/ 281/ 1	-11.12	-15.02	1.23	0.73	
421/ 281/ 1	-8.16	-12.98	1.47	0.94	
421/ 283/ 1	-7.15	-14.35	2.40	1.20	
422/ 283/ 1	-1.09	-11.49	3.38	1.82	
422/ 285/ 1	7.03	-19.97	7.45	6.06	
423/ 275/ 1	31.81	-10.57	8.85	12.34	
423/ 276/ 1	23.39	-2.51	5.69	7.26	
424/ 276/ 1	-1.08	-16.39	1.95	5.71	
424/ 277/ 1	-1.38	-16.09	0.30	7.05	
425/ 277/ 1	11.37	-1.17	0.33	5.94	
425/ 278/ 1	11.15	-1.30	0.97	5.26	
426/ 278/ 1	10.71	-10.28	0.65	9.85	
426/ 279/ 1	4.23	-3.80	0.19	3.82	
427/ 279/ 1	-0.55	-1.66	0.03	0.53	
427/ 280/ 1	37.31	-39.88	1.85	36.75	
428/ 280/ 1	37.21	-21.58	0.05	29.34	
428/ 281/ 1	8.38	7.25	0.45	0.11	
429/ 281/ 1	-4.32	-13.07	1.48	2.90	
429/ 282/ 1	4.57	-22.32	3.28	10.17	
430/ 282/ 1	24.77	5.80	2.09	7.40	
430/ 283/ 1	21.20	9.37	2.81	3.10	
431/ 283/ 1	-4.00	-23.48	5.06	4.68	
431/ 284/ 1	10.96	-38.79	4.83	20.05	
432/ 284/ 1	32.32	9.58	1.51	9.86	
432/ 285/ 1	59.35	-17.45	5.07	33.33	
433/ 238/ 1	32.17	-24.63	7.41	20.99	
433/ 250/ 1	20.38	-12.84	4.86	11.75	
434/ 250/ 1	21.07	-4.53	4.49	8.31	
434/ 262/ 1	17.17	-0.62	0.08	8.82	
435/ 262/ 1	31.75	-14.79	6.09	17.18	
435/ 314/ 1	13.88	3.08	1.53	3.87	
436/ 314/ 1	47.81	-39.86	6.20	37.63	
436/ 286/ 1	45.88	-37.93	5.31	36.60	
437/ 232/ 1	52.27	-52.14	12.42	39.79	
437/ 244/ 1	38.87	-38.74	10.75	28.06	
438/ 244/ 1	30.09	-29.87	3.15	26.83	
438/ 256/ 1	28.55	-28.33	1.23	27.21	
439/ 256/ 1	41.61	-41.47	14.90	26.64	
439/ 268/ 1	23.17	-23.03	2.06	21.04	
440/ 268/ 1	76.91	-76.96	19.28	57.66	
440/ 280/ 1	81.46	-81.50	19.57	61.91	
441/ 238/ 1	-42.25	-136.43	23.94	7.35	
441/ 216/ 1	-72.90	-72.90	0.00	0.00	
442/ 215/ 1	105.19	50.29	15.66	2.82	
442/ 250/ 1	103.16	43.86	16.81	0.29	
443/ 314/ 1	118.33	52.60	17.52	3.09	
443/ 219/ 1	114.32	60.69	15.30	0.66	
444/ 218/ 1	-64.51	-131.47	18.15	2.39	
444/ 286/ 1	-71.38	-120.75	14.08	0.22	
445/ 202/ 1	-26.54	-62.69	15.66	2.42	

 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA26QQ Tel : 01322 277731 Fax : 01322 284152	Project: Gelderland Central Power Station				Job Ref.: C2002	
	Part of Structure: Boiler House and Turbine Pedestal support structures				Sheet No./rev.:	
	Calc. by: 5.1.2e	Date: 18/08/22	App'd by: 5.1.2e	Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)
445/ 201/ 1	-5.10	-84.13	7.07	32.44	
447/ 203/ 1	41.87	26.98	5.00	2.45	
447/ 200/ 1	50.09	18.76	4.64	11.02	
448/ 200/ 1	-16.90	-51.85	4.65	12.82	
448/ 204/ 1	-28.35	-40.41	0.11	5.92	
449/ 204/ 1	15.49	3.40	0.31	5.73	
449/ 199/ 1	26.99	-8.10	3.34	14.20	
450/ 199/ 1	9.10	-28.04	3.33	15.25	
450/ 205/ 1	2.53	-21.46	4.24	7.75	
451/ 198/ 1	114.76	27.64	7.01	36.55	
451/ 206/ 1	94.58	47.82	15.02	8.37	
452/ 201/ 1	60.62	-94.97	1.73	76.07	
452/ 200/ 1	13.51	-47.87	17.17	13.52	
453/ 200/ 1	46.26	-17.30	21.46	10.32	
453/ 199/ 1	57.75	-8.76	19.39	13.86	
454/ 199/ 1	65.04	1.23	16.32	15.59	
454/ 198/ 1	124.36	-58.09	9.45	81.77	
455/ 148/ 1	110.76	6.46	38.22	13.93	
455/ 155/ 1	87.90	29.33	13.28	16.01	
456/ 155/ 1	5.31	-106.43	11.63	44.24	
456/ 153/ 1	35.29	-136.41	27.09	58.76	
457/ 153/ 1	124.71	-38.08	24.42	56.97	
457/ 156/ 1	99.15	-12.52	13.32	42.52	
458/ 156/ 1	-20.40	-80.23	15.18	14.73	
458/ 152/ 1	9.51	-110.13	47.63	12.19	
459/ 162/ 1	38.11	-113.19	53.74	21.91	
459/ 154/ 1	-13.66	-61.42	19.62	4.25	
460/ 154/ 1	86.51	-0.17	22.21	21.13	
460/ 160/ 1	88.46	-2.12	30.30	14.98	
461/ 160/ 1	-2.50	-90.17	29.73	14.10	
461/ 157/ 1	-6.49	-86.19	21.03	18.82	
462/ 157/ 1	65.65	15.00	18.59	6.74	
462/ 158/ 1	103.61	-22.95	52.36	10.92	
463/ 154/ 1	-0.70	-107.62	28.07	25.39	
463/ 155/ 1	12.91	-121.24	7.12	59.95	
464/ 155/ 1	70.36	-16.06	11.49	31.72	
464/ 156/ 1	28.61	-51.75	11.91	28.28	
465/ 156/ 1	123.58	-7.30	9.38	56.06	
465/ 157/ 1	110.28	6.00	26.59	25.55	
466/ 122/ 1	13.80	-13.21	0.01	13.49	
466/ 121/ 1	17.57	-16.98	12.78	4.49	
467/ 121/ 1	21.83	-13.56	13.17	4.52	
467/ 120/ 1	34.96	-26.69	25.97	4.86	
468/ 120/ 1	32.43	-24.29	25.94	2.42	
468/ 119/ 1	19.29	-11.16	13.15	2.08	
469/ 119/ 1	14.57	-14.44	12.78	1.73	
469/ 118/ 1	5.48	-5.34	0.06	5.35	
470/ 131/ 1	0.67	-4.76	1.37	1.35	
470/ 130/ 1	11.67	-15.76	13.22	0.50	
471/ 130/ 1	11.18	-15.29	13.11	0.12	
471/ 129/ 1	21.12	-25.23	20.53	2.64	
472/ 129/ 1	21.66	-25.51	20.53	3.06	

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				Date: 18/08/22		
Ref.	Calculations					Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)
472/ 128/ 1	12.47	-16.32	13.11	1.29	
473/ 128/ 1	11.84	-15.66	13.20	0.55	
473/ 127/ 1	7.04	-10.86	1.35	7.60	
474/ 131/ 1	32.50	-4.52	16.75	1.76	
474/ 121/ 1	16.81	11.17	1.89	0.93	
475/ 121/ 1	-9.56	-16.77	2.88	0.73	
475/ 129/ 1	11.20	-37.50	21.75	2.60	
476/ 129/ 1	11.26	-39.24	21.74	3.51	
476/ 119/ 1	-6.27	-21.68	2.75	4.96	
477/ 119/ 1	17.97	10.59	1.77	1.92	
477/ 127/ 1	38.28	-9.79	16.54	7.50	
478/ 123/ 1	0.19	-0.23	0.02	0.19	
478/ 130/ 1	1.61	-1.65	0.71	0.91	
479/ 130/ 1	2.88	-2.87	0.52	2.35	
479/ 124/ 1	1.51	-1.49	0.01	1.49	
480/ 125/ 1	1.54	-1.42	0.01	1.47	
480/ 128/ 1	0.59	-0.47	0.51	0.01	
481/ 128/ 1	7.16	-7.19	0.70	6.48	
481/ 126/ 1	4.84	-4.87	0.02	4.84	
482/ 115/ 1	36.15	-40.36	32.63	5.63	
482/ 132/ 1	0.03	0.03	0.00	0.00	
483/ 116/ 1	79.04	-70.35	70.07	4.62	
483/ 133/ 1	-0.05	-0.05	0.00	0.00	
484/ 117/ 1	30.47	-34.56	30.46	2.05	
484/ 134/ 1	0.21	0.21	0.00	0.00	
485/ 133/ 1	-1.96	-1.96	0.00	0.00	
485/ 160/ 1	3.71	-9.26	5.15	1.33	
486/ 89/ 1	7.24	-7.12	6.71	0.47	
486/ 91/ 1	7.41	-7.29	6.41	0.94	
487/ 91/ 1	92.13	-15.54	38.15	15.68	
487/ 104/ 1	121.57	-44.98	46.42	36.85	
488/ 104/ 1	52.10	-48.14	20.96	29.16	
488/ 92/ 1	30.43	-26.46	13.30	15.15	
489/ 92/ 1	4.07	0.89	1.04	0.54	
489/ 86/ 1	10.84	-5.89	7.80	0.56	
490/ 86/ 1	4.34	-4.03	3.45	0.74	
490/ 94/ 1	11.85	-11.54	10.96	0.73	
491/ 94/ 1	27.46	-22.54	24.58	0.43	
491/ 98/ 1	29.36	-24.45	26.78	0.12	
492/ 98/ 1	52.44	-45.51	48.19	0.79	
492/ 95/ 1	37.32	-30.40	33.18	0.69	
493/ 95/ 1	2.89	-3.16	2.74	0.29	
493/ 83/ 1	10.32	-10.59	10.31	0.15	
494/ 90/ 1	4.44	-4.16	4.06	0.24	
494/ 88/ 1	8.53	-8.24	8.12	0.27	
495/ 88/ 1	1.59	-23.07	9.40	2.93	
495/ 77/ 1	8.75	-30.23	17.77	1.72	
496/ 77/ 1	27.58	-7.63	17.26	0.34	
496/ 87/ 1	26.15	-6.20	15.60	0.58	
497/ 87/ 1	5.97	-0.62	3.03	0.27	
497/ 93/ 1	10.12	-4.78	7.19	0.26	
498/ 93/ 1	9.76	1.70	3.63	0.40	

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Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)
498/ 85/ 1	19.12	-7.67	13.33	0.07	
499/ 85/ 1	2.37	-0.68	1.09	0.43	
499/ 81/ 1	14.93	-13.24	12.95	1.13	
500/ 81/ 1	13.89	-16.98	13.14	2.29	
500/ 84/ 1	4.67	-7.75	4.64	1.57	
501/ 84/ 1	4.87	-3.10	3.97	0.02	
501/ 96/ 1	11.37	-9.59	10.42	0.06	
502/ 88/ 1	15.55	-2.15	7.09	1.76	
502/ 92/ 1	17.45	-4.05	9.30	1.45	
503/ 91/ 1	-6.45	-22.43	7.83	0.17	
503/ 87/ 1	-5.64	-23.24	8.76	0.04	
504/ 85/ 1	0.96	-0.03	0.41	0.08	
504/ 95/ 1	1.32	-0.39	0.79	0.07	
505/ 94/ 1	3.18	1.20	0.61	0.38	
505/ 84/ 1	3.03	1.35	0.63	0.21	
506/ 316/ 1	-1.82	-12.70	2.67	2.77	
506/ 317/ 1	-1.45	-13.07	3.93	1.88	
507/ 317/ 1	16.71	3.76	4.40	2.07	
507/ 318/ 1	15.41	5.07	2.33	2.84	
508/ 318/ 1	-1.48	-11.14	2.68	2.15	
508/ 319/ 1	0.49	-13.11	5.21	1.59	
509/ 319/ 1	3.18	-5.60	4.37	0.02	
509/ 320/ 1	2.43	-4.85	3.23	0.41	
510/ 320/ 1	7.30	1.89	2.57	0.13	
510/ 321/ 1	9.20	-0.01	4.38	0.22	
511/ 321/ 1	1.89	-6.96	3.76	0.67	
511/ 322/ 1	2.17	-7.24	3.50	1.20	
512/ 323/ 1	3.43	-1.25	0.70	1.64	
512/ 317/ 1	2.79	-0.61	0.05	1.66	
513/ 317/ 1	0.79	-5.78	0.57	2.72	
513/ 324/ 1	1.22	-6.21	0.92	2.80	
514/ 324/ 1	2.96	-5.98	2.98	1.49	
514/ 319/ 1	5.56	-8.58	5.38	1.69	
515/ 319/ 1	0.22	-4.66	2.09	0.35	
515/ 325/ 1	-0.37	-4.07	1.72	0.13	
516/ 325/ 1	0.45	-4.35	1.19	1.21	
516/ 321/ 1	2.64	-6.54	3.56	1.03	
517/ 321/ 1	5.02	-5.03	4.94	0.08	
517/ 326/ 1	5.68	-5.69	5.38	0.30	
518/ 316/ 1	6.57	-5.20	0.52	5.37	
518/ 327/ 1	6.85	-5.48	0.90	5.26	
519/ 327/ 1	6.48	-7.60	1.17	5.87	
519/ 318/ 1	7.17	-8.29	1.93	5.80	
520/ 318/ 1	9.67	-3.95	2.69	4.12	
520/ 328/ 1	12.48	-6.76	5.56	4.06	
521/ 328/ 1	8.47	-4.24	5.04	1.32	
521/ 320/ 1	3.47	0.76	0.21	1.15	
522/ 320/ 1	1.37	-0.94	0.39	0.76	
522/ 329/ 1	2.90	-2.47	1.64	1.04	
523/ 329/ 1	3.24	-2.75	1.61	1.39	
523/ 322/ 1	2.78	-2.29	0.59	1.95	
524/ 22/ 1	3.86	3.86	0.0	0.0	



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Sheet No./rev.:

Calc. by:
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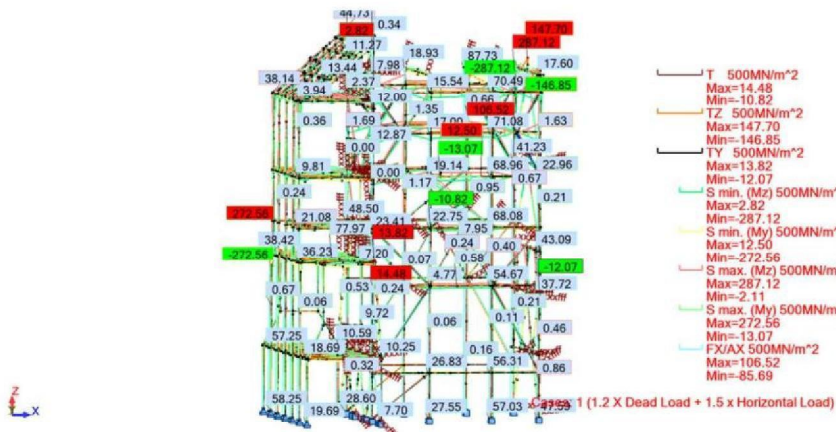
Ref.

Calculations

Output

Member/Node/Case	S max (MPa)	S min (MPa)	S max(My) (MPa)	S max(Mz) (MPa)	S min(My)
524/ 39/ 1	2.86	2.86	0.00	0.00	
526/ 38/ 1	53.21	53.21	0.0	0.0	
526/ 23/ 1	54.21	54.21	0.0	0.00	
527/ 15/ 1	8.56	8.56	0.0	0.0	
527/ 27/ 1	25.41	-9.74	5.68	11.89	
528/ 10/ 1	2.32	2.32	0.0	0.0	
528/ 26/ 1	12.62	-9.43	10.64	0.38	
529/ 227/ 1	-1.73	-18.68	6.26	2.21	
529/ 229/ 1	-9.26	-11.51	0.59	0.53	
530/ 193/ 1	36.14	-43.61	15.64	24.23	
530/ 202/ 1	-0.16	-0.16	0.00	0.00	
531/ 194/ 1	131.35	-129.08	40.20	90.01	
531/ 203/ 1	4.81	4.81	0.00	0.00	
532/ 195/ 1	143.43	-139.30	54.34	87.02	
532/ 204/ 1	2.38	2.38	0.00	0.0	
533/ 196/ 1	153.36	-148.43	57.01	93.88	
533/ 205/ 1	-3.75	-3.75	0.00	0.0	
534/ 197/ 1	38.43	-42.49	16.16	24.30	
534/ 206/ 1	1.68	1.68	0.00	0.00	

View - S max(My),S max(Mz),S min(My),S min(Mz),Fx/Ax,TY,TZ,T, Cases: 1 (1.2 X Dead Load + 1.5 x Horizontal Load)



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BOILER COLUMNS @ GROUND LEVEL.

Grid Line N

Maximum vertical force.

My = 967.76, Mz = -7.13, Mx = 45.13; Fy = 2.46, Fz = 5187.55, Fx = 148.90

Bearing stress = $5187.55 \times 10^3 / (4090 \times 30) = 42.28 \text{ N/mm}^2$,

Resultant Shear = 149kN

Shear stress = $149 \times 10^3 / (30 \times 1700) = 2.92$

Bending stress = $967.76 \times 10^3 / (0.585 \times 30 \times 850) + 45.13 \times 10^3 / (1.17 \times 30 \times 850) =$

$64.874 + 1.513 = 66.387$

Maximum tensile stresses = $66.387 - 42.28 = 24.107$

Maximum compressive stresses = $66.387 + 42.28 = 108.667$

, therefore OK.

Grid Line P

Maximum vertical force.

My = 2372.83, Mz = -7.32, Mx = 437.74; Fy = 844.40, Fz = 15338.22, Fx = 374.30

Bearing stress = $15338.22 \times 10^3 / (4690 \times 37) = 88.389 \text{ N/mm}^2$,

Resultant Shear = 923.64kN

Shear stress = $923.64 \times 10^3 / (40 \times 1700) = 13.583$

Bending stress = $2372.83 \times 10^3 / (0.583 \times 40 \times 1700) + 437.74 \times 10^3 / (1.56 \times 40 \times 850) =$

$59.853 + 8.253 = 68.106$

Maximum tensile stresses = $68.106 - 88.389 = -20.283$ (compression)

Maximum compressive stresses = $66.106 + 88.389 = 154.495$

, therefore OK.

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	BOILER COLUMNS CUTS BETWEEN FIRING FLOOR & LEVEL +68.00 Typical Maximum vertical force. My = 1059.13, Mz = 354.87, Mx = 921.92; Fy = 1.4, Fz = 155.1, Fx = 9681.83 Bearing stress = $9681.83 \times 10^3 / (4100 \times 30) = 78.714 \text{ N/mm}^2$, Resultant Shear = 155.1kN Shear stress = $155.1 \times 10^3 / (30 \times 1700) = 3.041$ Bending stress = $1059.13 \times 10^3 / (1.18 \times 30 \times 850) + 354.87 \times 10^3 / (0.585 \times 30 \times 1700) =$ $35.198 + 11.894 = 47.092$ Maximum tensile stresses = $47.092 - 78.714 = -31.622$ (compression) Maximum compressive stresses = $47.092 + 78.714 = 125.806$. , therefore OK. BRACINGS Grid Line M Level +55.000 Vertical bracing – 660dia x 25mm thick. My = 2.32, Mz = 219.42, Mx = 0; Fy = 15.53, Fz = 15.59, Fx = -3662.16 Minimum bearing length required = $3662.16 \times 10^3 / (275 \times 25) = 533 \text{ mm}$, Level 81.6 Beams attached to Boiler Max Tensile Force = 141.24kN Minimum tag length = $141.24 \times 10^3 / (275 \times 10) = 52 \text{ mm}$	
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		Date: 18/08/22				
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	STEAM PIPES Pipe diameter = 800mm Pipe thickness = 30mm and 60mm Total number of pipes = 6 Use the thicker pipe to calculate weight and the smaller pipe to calculate tag size. 60mm thick pipe weight = $6.15 \times 78.5 = 482.775$, Factored weight = $1.5 \times 482.775 = 724.16$, say 725kN Minimum tag size required = $725 \times 10^3 / (275 \times 30) = 88\text{mm}$ Provide 2no. x 50mm tags diametrically.	
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Ref.	Calculations				Output	

	TURBINE BLOCK. The proposed preparation involves the drilling of 38mm diameter blind holes to receive the explosives charge. Reinforcement bars where encountered, will be avoided. Consequently, the stability of the structure will not be compromised by the proposed preparations. GLOBAL STABILITY. By, inspection, the global stability of the structure will not be compromised, as the preparations described above will be inconsequential. CONCRETE STRESSES. Check the drilled columns compressive capacity. Consider the 800sq columns. The existing cross sectional area = $800 \times 800 = 640000\text{mm}^2$ The minimum cross-sectional area at the section where 2 holes are drilled = $640000 - (2 \times 38 \times 600) = 594400$ Therefore, the local increase in compressive stress = $640000/594400 = 1.0767$ The sectional increase in stresses is only 7.67% which is far less than existing margins of 50%, therefore OK. NOTE: The turbine block is carrying far less loads than it did during operations. Therefore, there could less stresses than during the operational phase.	
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13.0 DESIGN CONCLUSION SUMMARY

Having concluded our design calculations we can confirm that the Boiler House Support Structures (incorporating DA/Bunker Bay) and Turbine Pedestal remain stable in their temporary state following the proposed alterations to aid their felling with the aid of controlled explosives.

The attendant drawings to be strictly adhered to during the alterations process.

14.0 Appendix

1. Designers Risk Assessment
2. Design Drawings – C2002/D005/DWG001 - 022.

Appendix 1

Designers Risk Assessment

Hazard/Risk Assessment

Hazard	Hazard Sub Category	Persons at Risk	Initial Risk Rating			Control Measures	Residual Risk Rating		
			S	L	RR		S	L	RR
Disproportionate Collapse caused by accidental loading.	a. Plant	B&M	3	3	9	All plant movement to be controlled and not come closer than 2m from the works (columns and beams) once the structural pre-weakening begins. MEWPs may be exceptions. However, MEWPs should be operated by experienced and authorised personnel only.	3	1	3
	b. Personnel	Contractors	3	3	9		3	1	3
		Others	3	3	9		3	1	3
'Drill' locations which are not readily accessible.	a. Some columns proposed drill locations are not reachable from ground level.	B&M	3	3	9	A safe system of access and egress to be established before any work begins. Suitable fall arrest system to be provided.	3	1	3
		Contractors	3	1	3		3	1	3
		Others	3	1	3		3	1	3
5.1.2e wind speed exceeding 16.5m/s.		B&M	3	3	9	The structural stability of the building will not be compromised beyond the 16.5m/s wind speed and up to the designed wind speed. This measure is purely precautionary to protect personnel from windborne debris. All operations to be stopped and the premises vacated immediately should the limit be exceeded.	3	1	3
		Contractors	3	3	9		3	1	3
		Others	3	3	9		3	1	3

Severity

Likelihood

1 – Minor accident (First Aid)	2 – Major accident (RIDDOR)	3 – Fatality	1 - Low	2 – Medium	3 – High
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Risk Rating & Control & Monitoring Protocols

1-2: Work may proceed in accordance with Brown and Masons policy and procedures	3-4: Work may proceed providing stringent control measures have been implemented (e.g. permit to work, monitoring, etc.)	6-9: The work cannot commence until alternative method of work or additional control measures implemented
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Appendix 2

Design Drawings – C2002/D005/DWG001 - 022.

STRUCTURAL STEELWORK TOLERANCES

COLUMNS - CUTS VERTICAL HEIGHTS, 'H'

COLUMN CUTS VERTICAL HEIGHT TOLERANCE = $\pm 250\text{mm}$

WHERE 'H' = SPECIFIED CUT HEIGHT AS DETAILED ON BAM G.A. DRAWINGS.

CUT LEVEL CAN BE UP TO 250mm BELOW OR ABOVE THE SPECIFIED CUT HEIGHT ($\pm 250\text{mm}$).

— SPECIFIED CUT LINE
— CUT POSITION LIMIT
— ACCEPTABLE CUT ZONE

NOTE

ANY NEED TO AVOID BEAM STIFFENER PLATES OR CUTS THROUGH BOX COLUMN ACCESS HATCHES WILL BE TREATED ON A CASE-BY-CASE BASIS AND MUST BE REFERRED TO ENGINEERING MANAGER FOR ASSESSMENT

BEAMS - SLOPING CUTS HORIZONTAL DIMENSION

BEAM CUTS HORIZONTAL DIMENSION FROM FACE OF COLUMN = $\pm 250\text{mm}$

CUT CAN BE UP TO 100mm EITHER SIDE OF THE SPECIFIED CUT HEIGHT ($\pm 100\text{mm}$).

— SPECIFIED CUT LINE
— CUT POSITION LIMIT
— ACCEPTABLE CUT ZONE

NOTE

UNLESS STATED OTHERWISE, SLOPING CUTS ARE SET OUT AT 45°.

USE THE FOLLOWING RULE WHEN MARKING OUT 45° SLOPING CUT FROM THE FACE OF COLUMN :-

UPPER FLANGE = 250mm
LOWER FLANGE = 'D' + 250mm
where 'D' = DEPTH OF BEAM

TAG LENGTHS

Beam / Brace

TAG LENGTH TOLERANCE = $\pm T + 25\text{mm}$

WHERE 'T' = SPECIFIED TAG LENGTH AS DETAILED ON BAM G.A. DRAWINGS.

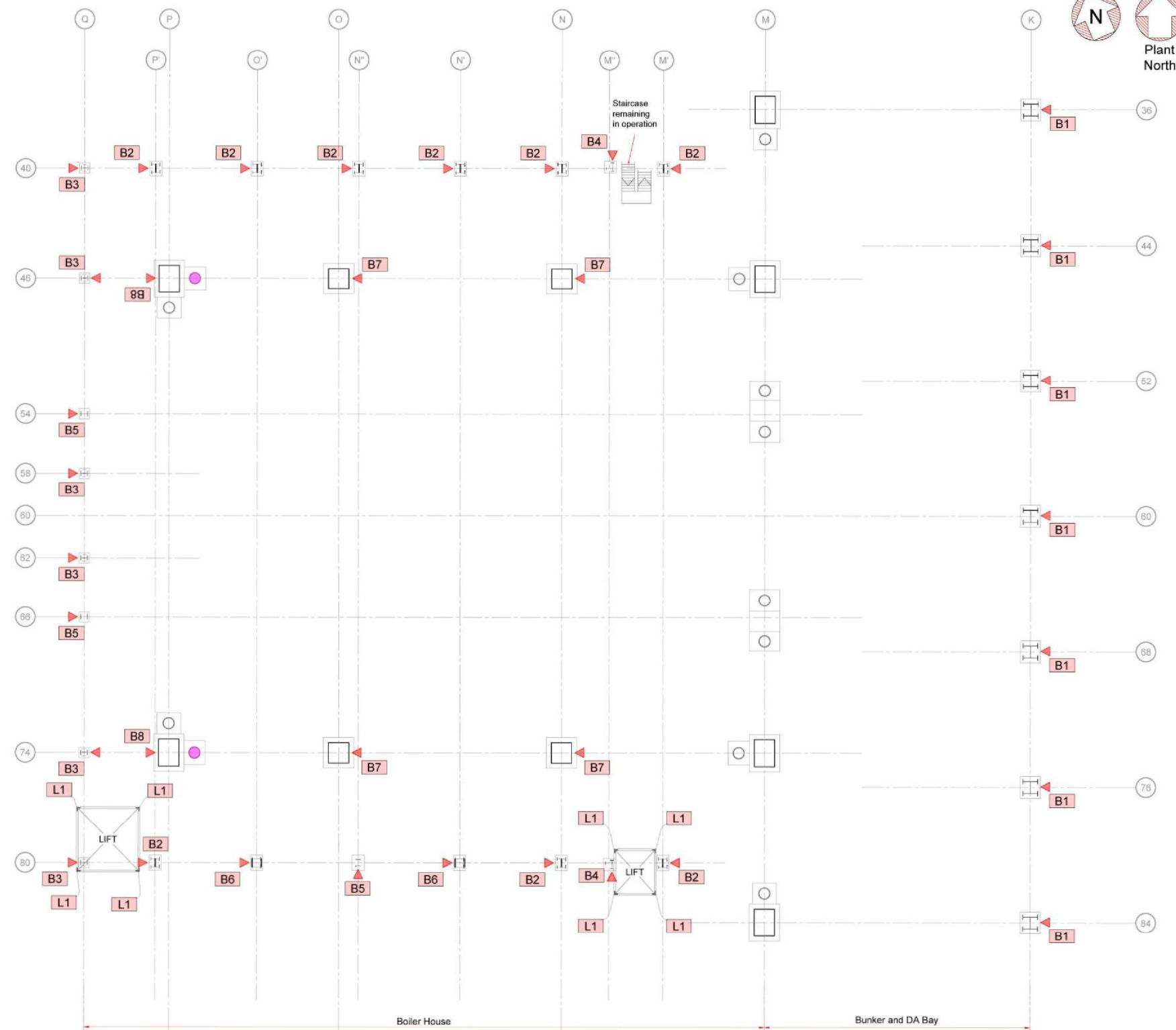
UP TO 25mm CAN BE ADDED TO THE SPECIFIED TAG LENGTH BUT REDUCTIONS ARE NOT PERMITTED.

— SPECIFIED CUT LINE
— TAG SIZE LIMIT

Column

SHIMMING

- FULL LENGTH SHIMMING REQUIRED.
- A STEADY AND EXPERIENCED HAND REQUIRED TO PERFORM LEVEL CUTS ON SHIMMING AREAS
- ANY UNEXPECTED MOVEMENT TO BE REPORTED TO THE DESIGNER IMMEDIATELY.



1 PLAN LAYOUT @ LEVEL +14.200

Exclusion Zones

- Plant not permitted within 2m of columns once pre-weakening commences.
- MEWPS are an exception but are to be operated by experienced and authorised personnel only.

Grid Ref	Section	Direction	Width (W)	Wall Thickness	Depth (d)	Wall Thickness
P46 / P74	1600 x 1200	N - S	1200	40	1600	35
O46 / Q74	1200 x 1200	--	1200	30	1200	30
N46 / N74	1200 x 1200	--	1200	30	1200	30
M36 / M46 M74 / M84	1200 x 1200	--	1200	20	1200	20

Grid Ref	Section	Direction	Width (W)	Depth (D)	Flange (T)	Flange Plates	Web (D)
K36 - K84	2 x HE 900 B	E - W	300	900	35	05-08-22	22 x 692
M40 & M80	2 x IPE 500	N - S	200	500	16	--	20 x 490
M40 & M80	IPE 500	N - S	200	500	16	--	--
	IPE 360	E - W	170	360	12	--	--
N40	2 x IPE 500	N - S	200	500	16	--	20 x 490
N80	2 x IPE 500	E - W	200	500	16	500 x 15	--
N40	2 x IPE 500	N - S	200	500	16	--	20 x 490
N80	HEA 390	N - S	300	390	19	--	--
O40	2 x IPE 500	N - S	200	500	16	--	20 x 490
O80	2 x IPE 500	E - W	200	500	16	500 x 15	--
P40 & P80	2 x IPE 500	N - S	200	500	16	--	20 x 490
Q40, Q46, Q56 Q62, Q74, Q80	2 x IPE 200	N - S	100	200	8.5	--	--
	IPE 400	E - W	180	400	13.5	--	--
Q54, Q66	IPE 400	E - W	180	400	13.5	--	--

DESIGNER'S RISK ASSESSMENT

Notes

- For the DRA refer to the calculations.
- Note: The weakened structure has not been designed to satisfy the requirements for disproportionate collapse. It is imperative that all precautions are taken not to remove or impair any structural element of the building beyond the prescribed cuts. Should there be any structural stability concern, work must be stopped and the premises vacated. The issue should be reported immediately to the Engineering Director in the first instance.

Allowable wind speed

- The limiting gust wind speed is 60km/h (16.7m/s).
- Wind speed forecasts should be used to plan the cuts.
- Wind speed monitoring to be put in place - weakening or post-weakening operations to be stopped and the premises (drop zone) vacated immediately should the limit be exceeded.

Works site access

- During the prepping of the columns/beams and up to blowdown other non-related operations to be eliminated/limited in the area to avoid accidental collision with the structure and premature collapse.
- The attendance by operatives and/or visitors should be by absolute necessity only.

Competence

- The structural weakening to be supervised by BAM Management and conducted in accordance with BAM QM24 'Structural Pre-Weakening' flow chart and BAM272 'Structural Pre-Weakening Quality Control Checklist'.

Proposed cutting sequence

- Cuts to be undertaken sequentially from top to bottom.
- Blast plates and shimming (cutting just enough to place shims) can be undertaken as part of advance works.
- Final cuts to blast cuts and slight sloping cuts to be undertaken just before charging.

Exclusion Zones

- Plant not permitted within 2m of columns once pre-weakening commences.
- MEWPS are an exception but are to be operated by experienced and authorised personnel only.

PRE-WEAKENING / ENABLING WORKS LEGEND

Denotes structural element to be removed.

Pre-Weakening cut

Pre-Weakening cut ID

All drawings to be printed in color

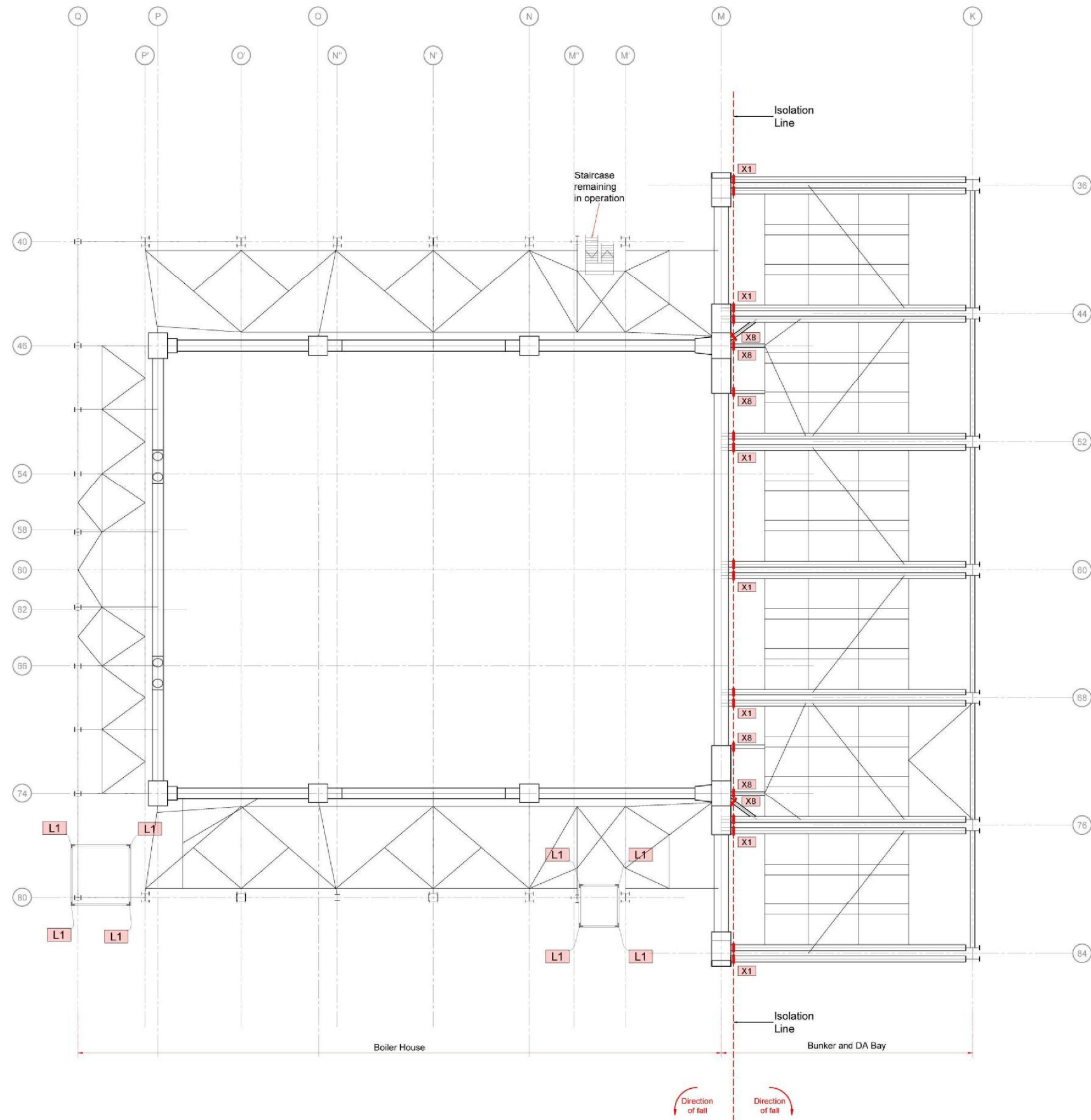
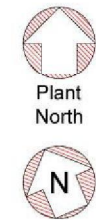
Rev	Date	Description	By

BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park,
Dartford, Kent, DA2 6QQ
Tel: +44 (0)1322 277731 Fax: +44 (0)1322 284152

Site
Central Gelderland Power Plant
Hollandiaweg 11, 6541 BL Nijmegen

Title
Boiler House
Explosive Demolition Preparation
Plan Layout @ Level +14.200

Scale at A3	Date	Drawn	Designed
N.T.S.	05-08-22	5.1.2e	5.1.2e
Project Number	Design Number	Drawing Number	Revision
C2002	D005	DWG001	



1 PLAN LAYOUT @ LEVEL +28.600

Notes

Key

- PRE-WEAKENING / ENABLING WORKS LEGEND**
- Pre-Weakening cut
 - ?? Pre-Weakening cut ID

All drawings to be printed in color

Rev	Date	Description	By
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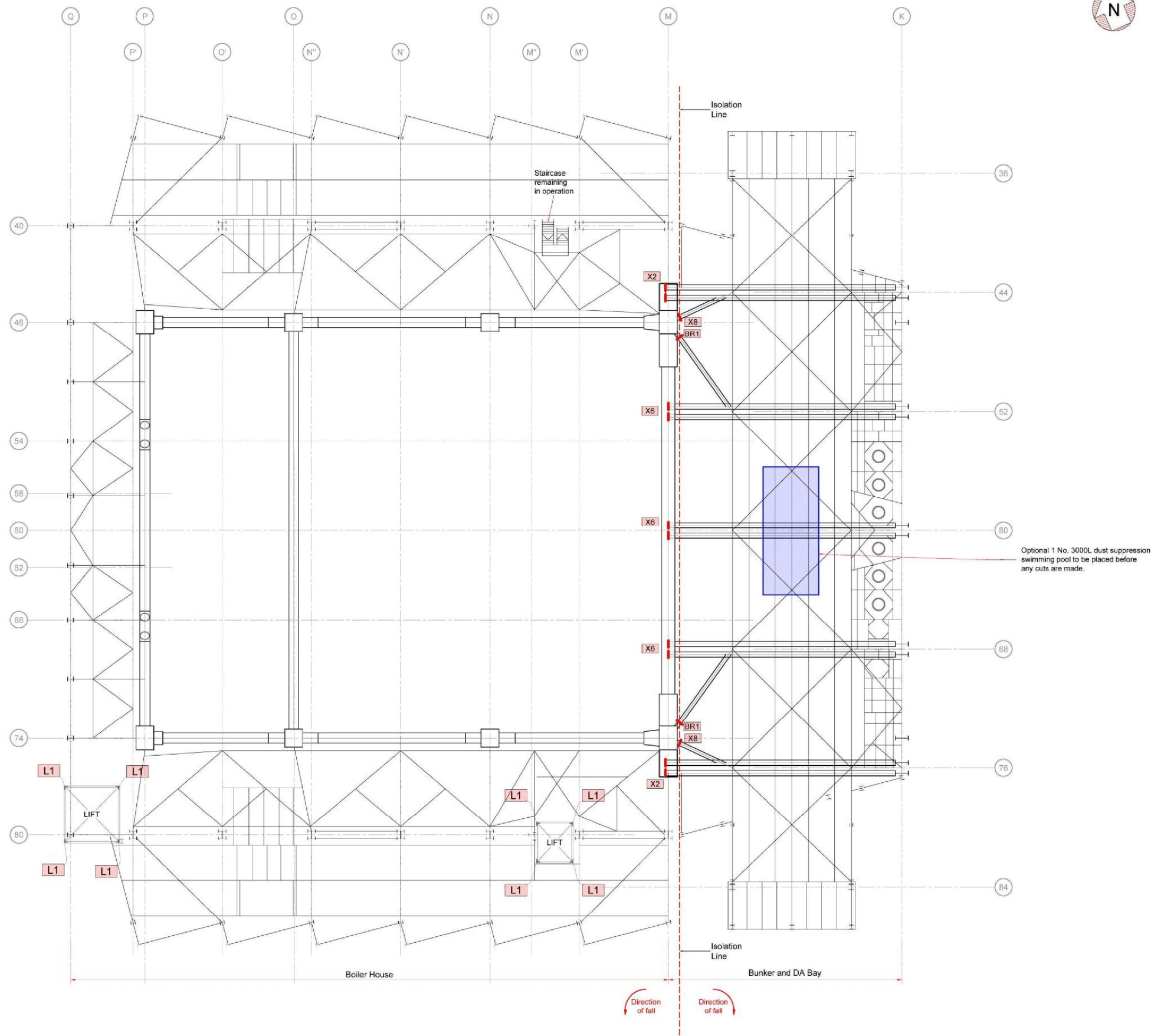
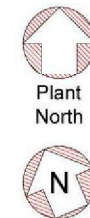
BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park,
Dartford, Kent, DA2 6QQ

Tel : +44 (0)1322 277731 Fax : +44 (0)1322 284152

Site
Central Gelderland Power Plant
Hollandiaweg 11, 6541 BL Nijmegen

Title
Boiler House
Explosive Demolition Preparation
Plan Layout @ Level +28.600

Scale at A3	Date	Drawn	Designed
N.T.S.	05-08-22	5.1.2e	5.1.2e
Project Number	Design Number	Drawing Number	Revision
C2002	D005	DWG002	



1 PLAN LAYOUT @ LEVEL +48.200

Notes			

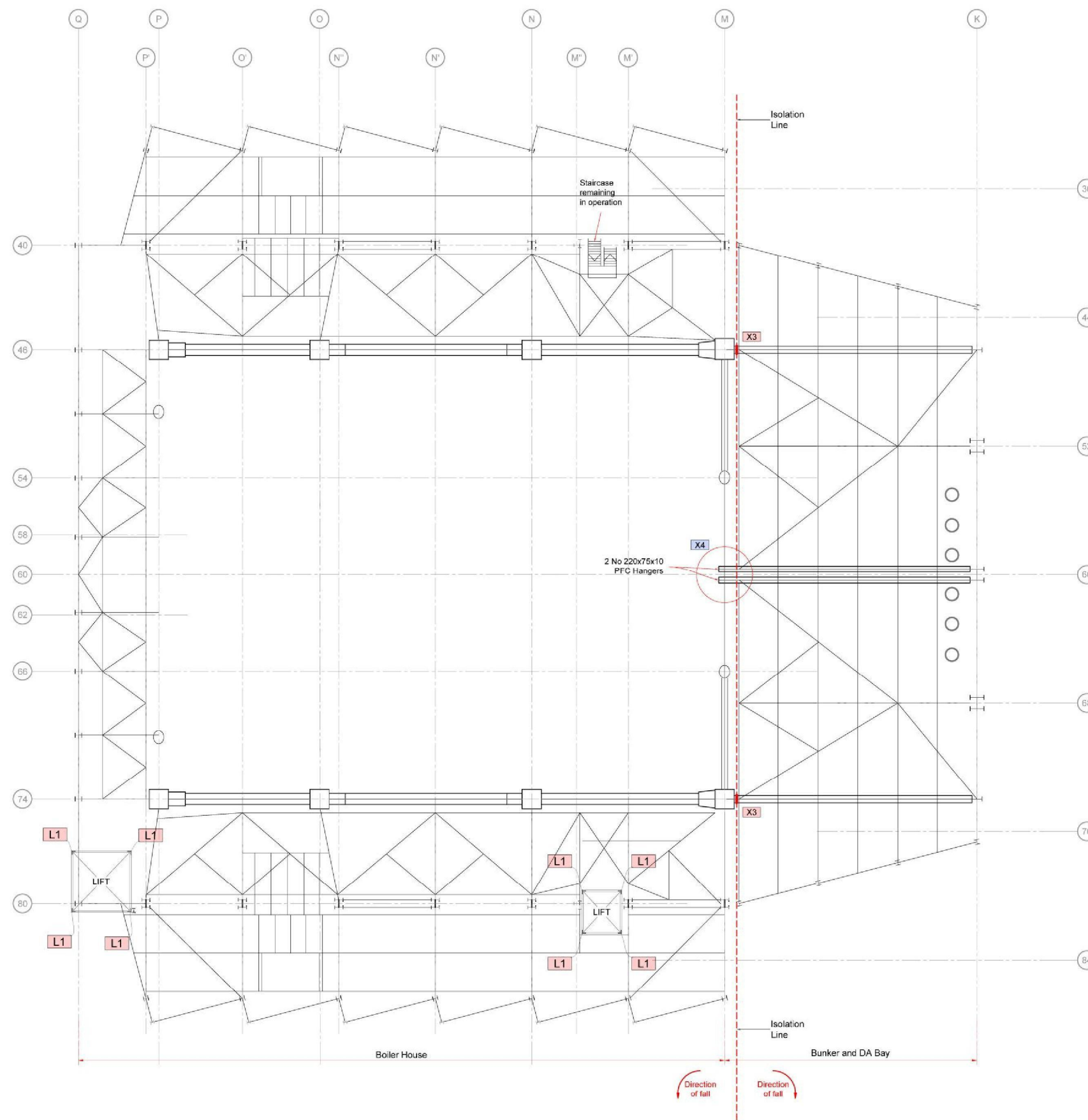
Key	
PRE-WEAKENING / ENABLING WORKS LEGEND	
	Pre-Weakening cut
	Pre-Weakening cut ID

All drawings to be printed in color			
Rev	Date	Description	By



BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park,
Dartford, Kent, DA2 6QQ
Tel : +44 (0)1322 277731 Fax : +44 (0)1322 284152

Site			
Central Gelderland Power Plant Hollandiaweg 11, 6541 BL Nijmegen			
Title			
Boiler House Explosive Demolition Preparation Plan Layout @ Level +48.200			
Scale at A3	Date	Drawn	Designed
N.T.S.	05-08-22	5.1.2e	5.1.2e
Project Number	Design Number	Drawing Number	Revision
C2002	D005	DWG003	



1 PLAN LAYOUT @ LEVEL +55.000

Notes

PRE-WEAKENING / ENABLING WORKS LEGEND

— Pre-Weakening cut

?? Pre-Weakening cut ID

All drawings to be printed in color

Rev	Date	Description	By
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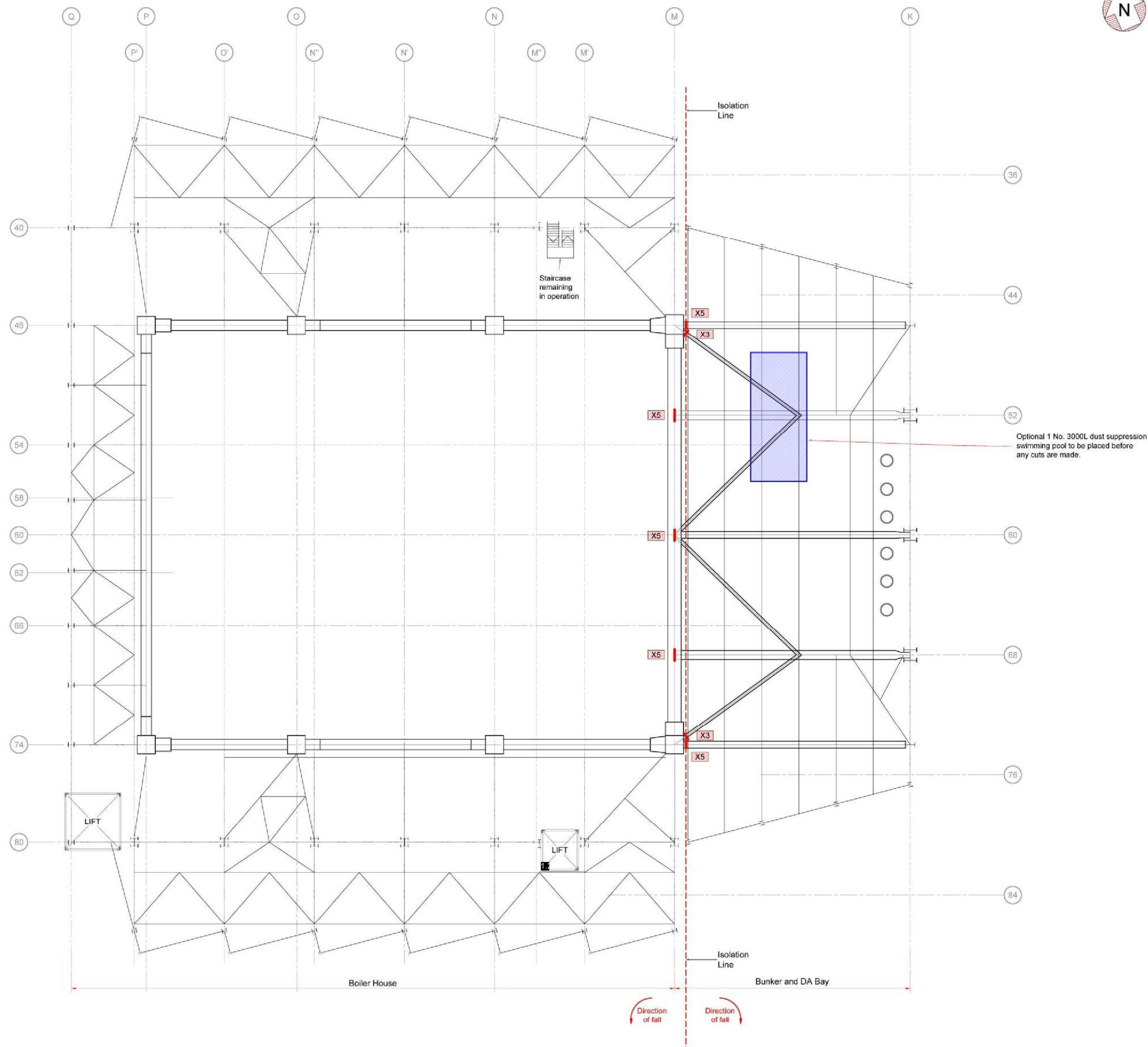


Site	
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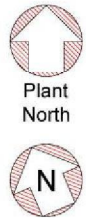
Central Gelderland Power Plant
Hollandiaweg 11, 6541 BL Nijmegen

Boiler House
Explosive Demolition Preparation
Plan Layout @ Level +55.000

Scale at A3	Date	Drawn	Designed
N.T.S.	05-08-22	5.1.2e	5.1.2e
Project Number	Design Number	Drawing Number	Revision
C2002	D005	DWG004	



1 PLAN LAYOUT @ LEVEL +65.200



Notes			
Key			

PRE-WEAKENING / ENABLING WORKS LEGEND

- Pre-Weakening cut
- Pre-Weakening cut ID

Optional 1 No. 3000L dust suppression swimming pool to be placed before any cuts are made.

All drawings to be printed in color

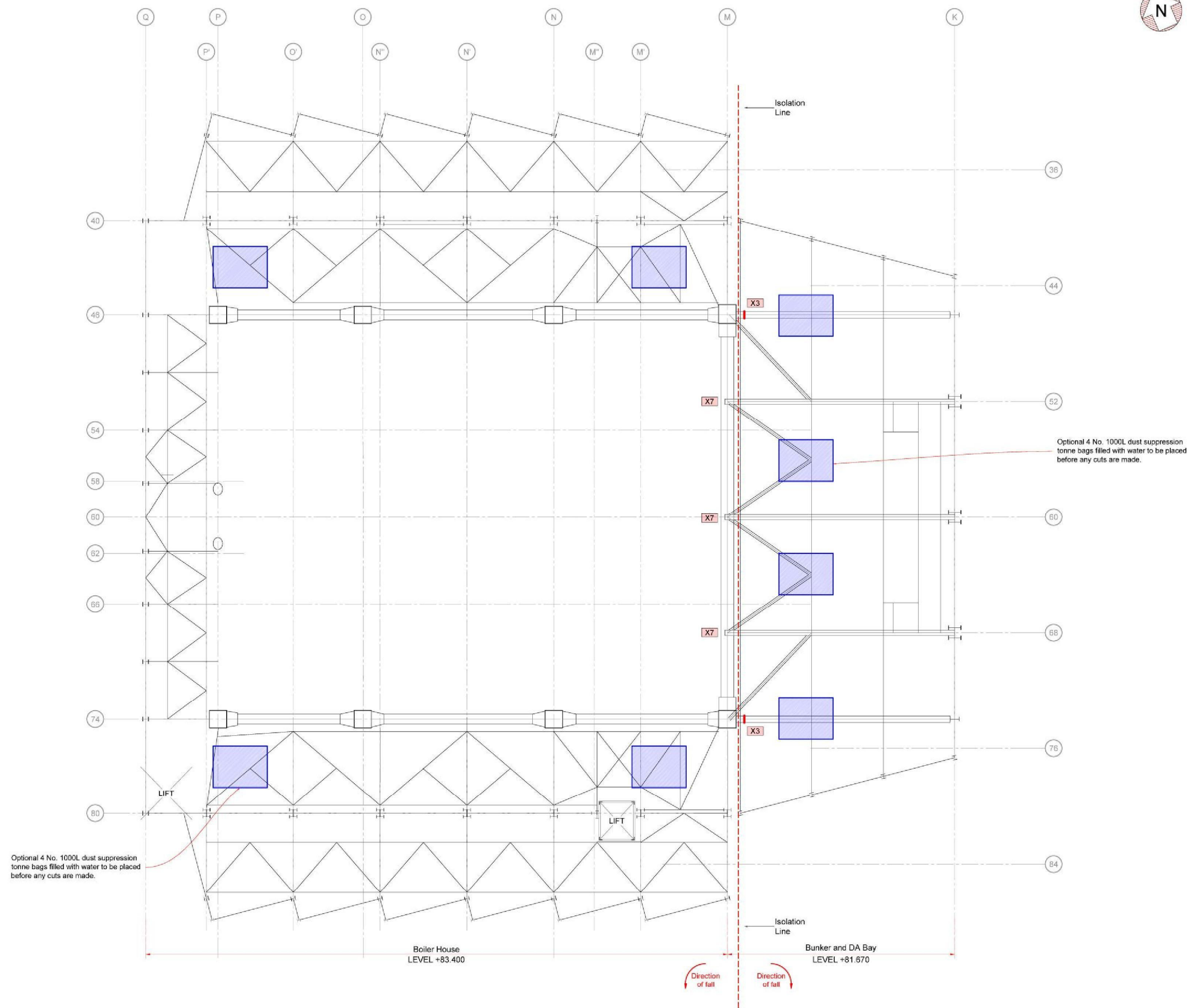
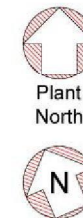
Rev	Date	Description	By



BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park,
Dartford, Kent, DA2 6QQ

Tel : +44 (0)1322 277731 Fax : +44 (0)1322 284152

Site			
Central Gelderland Power Plant Hollandiaweg 11, 6541 BL Nijmegen			
Title			
Boiler House Explosive Demolition Preparation Plan Layout @ Level +65.200			
Scale at A3	Date	Drawn	Designed
N.T.S.	05-08-22	5.1.2e	5.1.2e
Project Number	Design Number	Drawing Number	Revision
C2002	D005	DWG005	



1 **PLAN LAYOUT @ LEVEL +81.670 / +83.400**

Notes

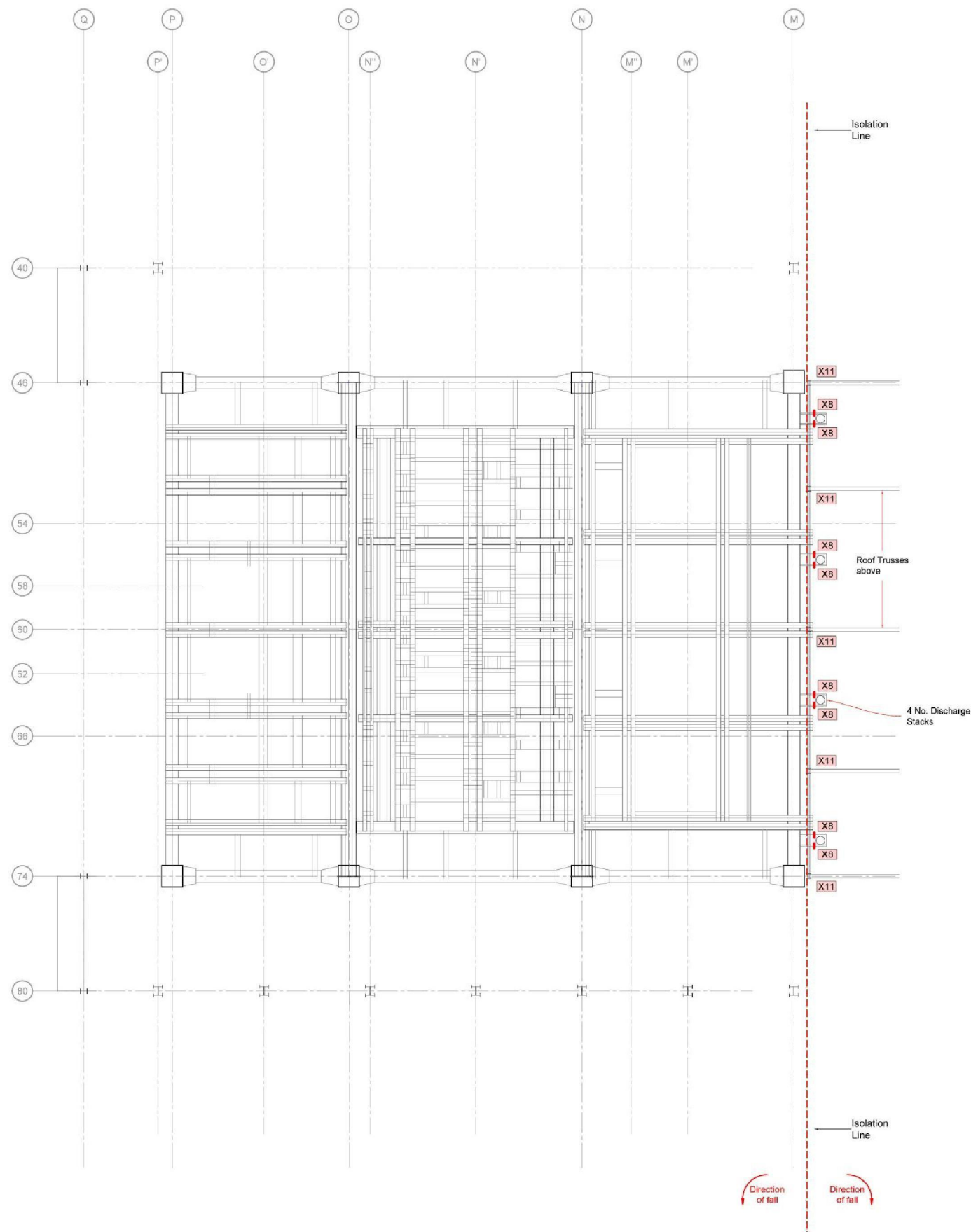
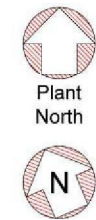
Key

PRE-WEAKENING / ENABLING WORKS LEGEND
— Pre-Weakening cut
?? Pre-Weakening cut ID

Optional 4 No. 1000L dust suppression tonne bags filled with water to be placed before any cuts are made.

All drawings to be printed in color

Rev	Date	Description	By
 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA2 6QQ Tel : +44 (0)1322 277731 Fax : +44 (0)1322 284152			
Site			
Central Gelderland Power Plant Hollandiaweg 11, 6541 BL Nijmegen			
Title			
Boiler House Explosive Demolition Preparation Plan Layout @ Level +81.670 / +83.400			
Scale at A3	Date	Drawn	Designed
N.T.S.	05-08-22	5.12e	5.12e
Project Number	Design Number	Drawing Number	Revision
C2002	D005	DWG006	



1 PLAN LAYOUT @ LEVEL +89.000

Notes

Key

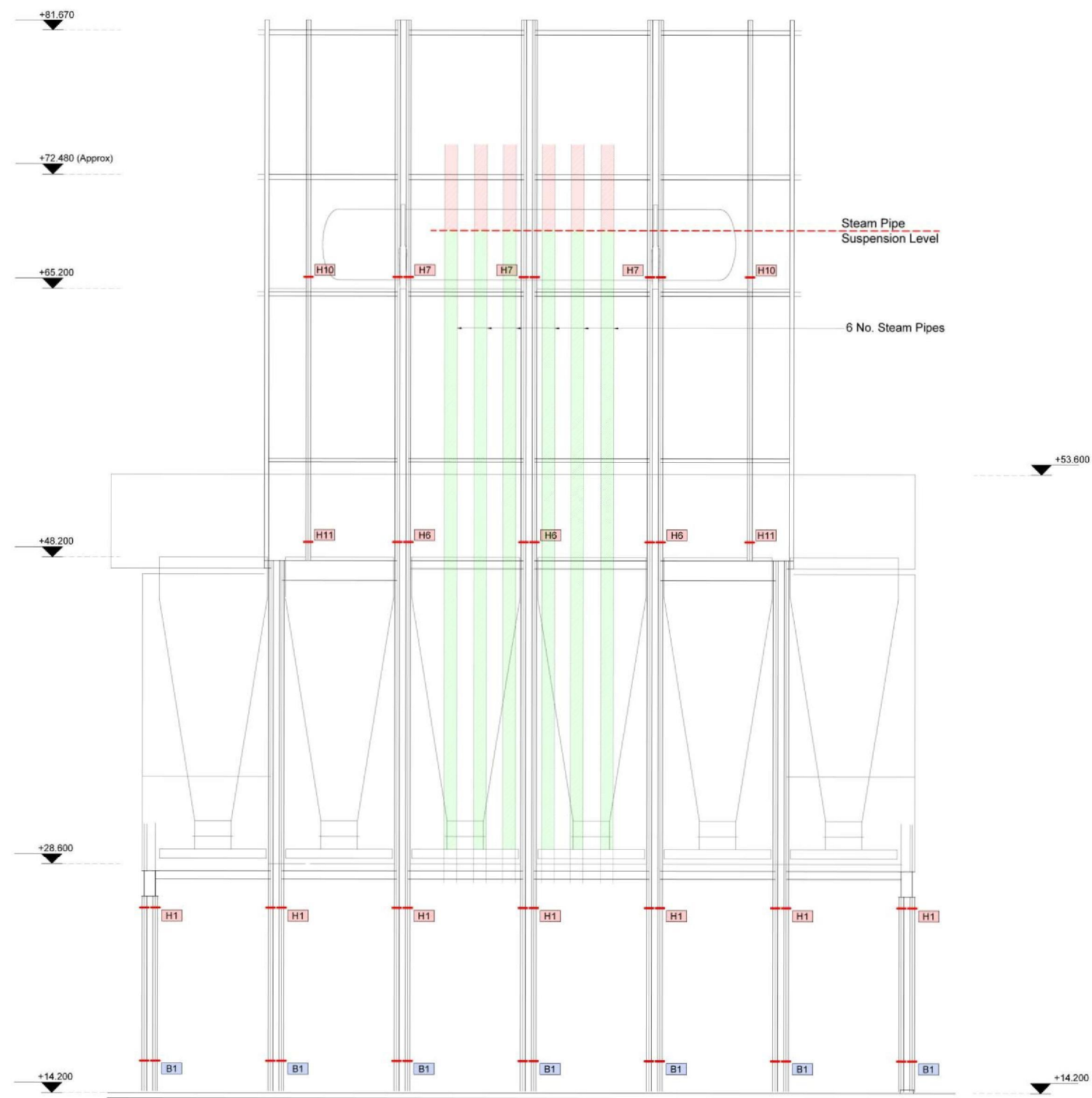
PRE-WEAKENING / ENABLING WORKS LEGEND
— Pre-Weakening cut
?? Pre-Weakening cut ID

All drawings to be printed in color

Rev	Date	Description	By
 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA2 6QQ Tel : +44 (0)1322 277731 Fax : +44 (0)1322 284152			
Site Central Gelderland Power Plant Hollandiaweg 11, 6541 BL Nijmegen			
Title Boiler House Explosive Demolition Preparation Plan Layout @ Level +89.000			
Scale at A3	Date	Drawn	Designed
N.T.S.	05-08-22	5.1.2e	5.1.2e
Project Number	Design Number	Drawing Number	Revision
C2002	D005	DWG007	



0187



1 EASTERN ELEVATION ON GRID LINE K

Notes

Key

- PRE-WEAKENING / ENABLING WORKS LEGEND**
- Pre-Weakening cut
 - Pre-Weakening cut ID
 - STEAM PIPES NOT TO BE CUT ABOVE SUSPENSION LEVEL
 - EACH STEAM PIPE TO HAVE 2 No x 50 TAGS PER CUT LOCATION. TAGS TO BE LOCATED ON NORTH & SOUTH SIDES. EACH PIPE CAN BE AS CUT AS MANY TIMES AS REQUIRED.

All drawings to be printed in color

Rev	Date	Description	By
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BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park,
Dartford, Kent, DA2 6QQ
Tel : +44 (0)1322 277731 Fax : +44 (0)1322 284152

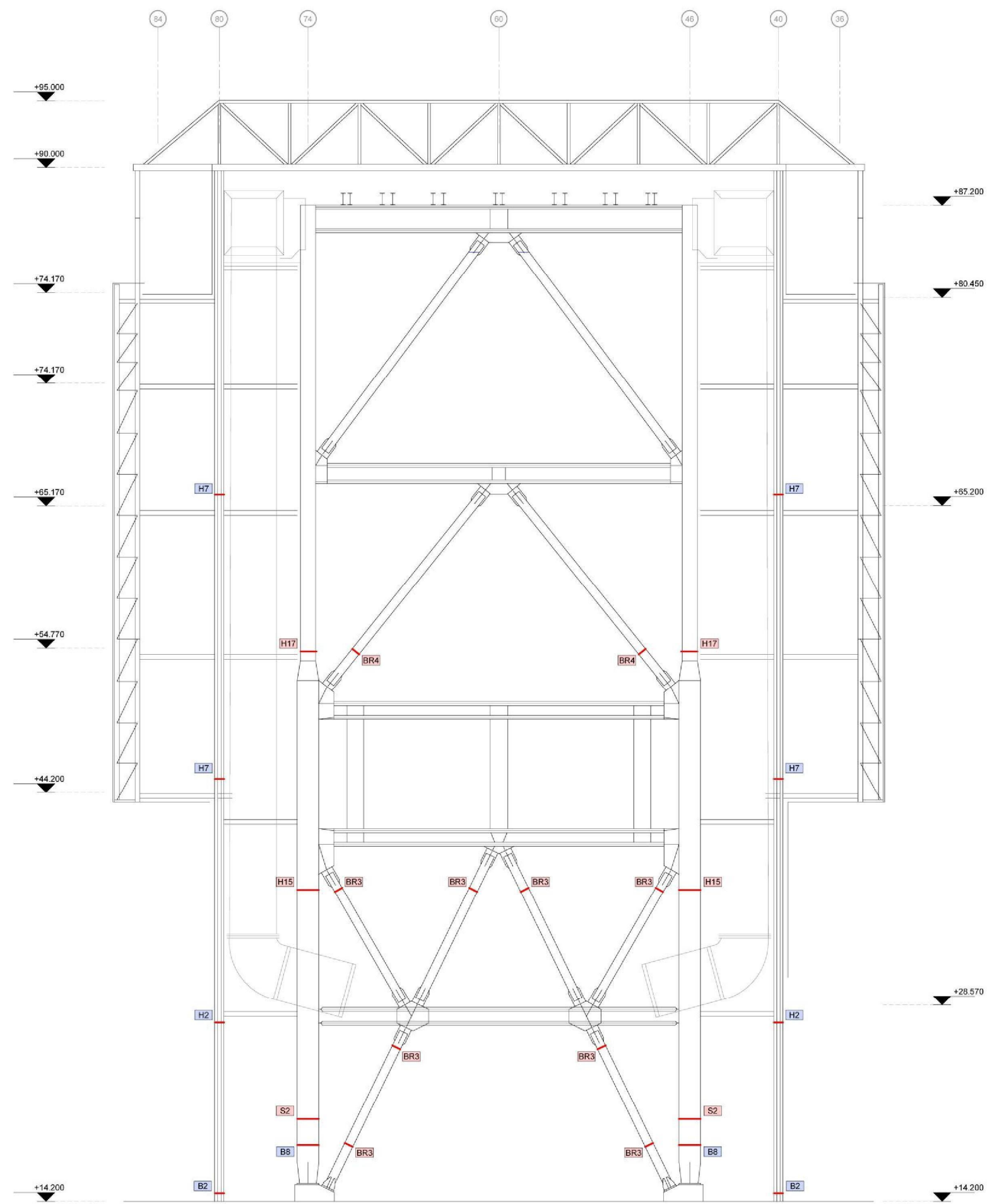
Site

Central Gelderland Power Plant
Hollandiaweg 11, 6541 BL Nijmegen

Title

Boiler House
Explosive Demolition Preparation
Eastern Elevation - Grid Line K

Scale at A3	Date	Drawn	Designed
N.T.S.	05-08-22	5.1.2e	5.1.2e
Project Number	Design Number	Drawing Number	Revision
C2002	D005	DWG011	



1 EASTERN ELEVATION ON GRID LINE P

Notes

Key

PRE-WEAKENING / ENABLING WORKS LEGEND

Pre-Weakening cut

??

Pre-Weakening cut ID

All drawings to be printed in color

Rev

Date

Description

By

BROWN&MASON

Anson House, Schooner Court,
Crossways Business Park,
Dartford, Kent, DA2 6QQ

Tel : +44 (0)1322 277731 Fax : +44 (0)1322 284152

Site

Central Gelderland Power Plant
Hollandiaweg 11, 6541 BL Nijmegen

Title

Boiler House
Explosive Demolition Preparation
Eastern Elevation - Grid Line P

Scale at A3

Date

Drawn

Designed

N.T.S.

05-08-22

5.1.2e

5.1.2e

Project Number

Design Number

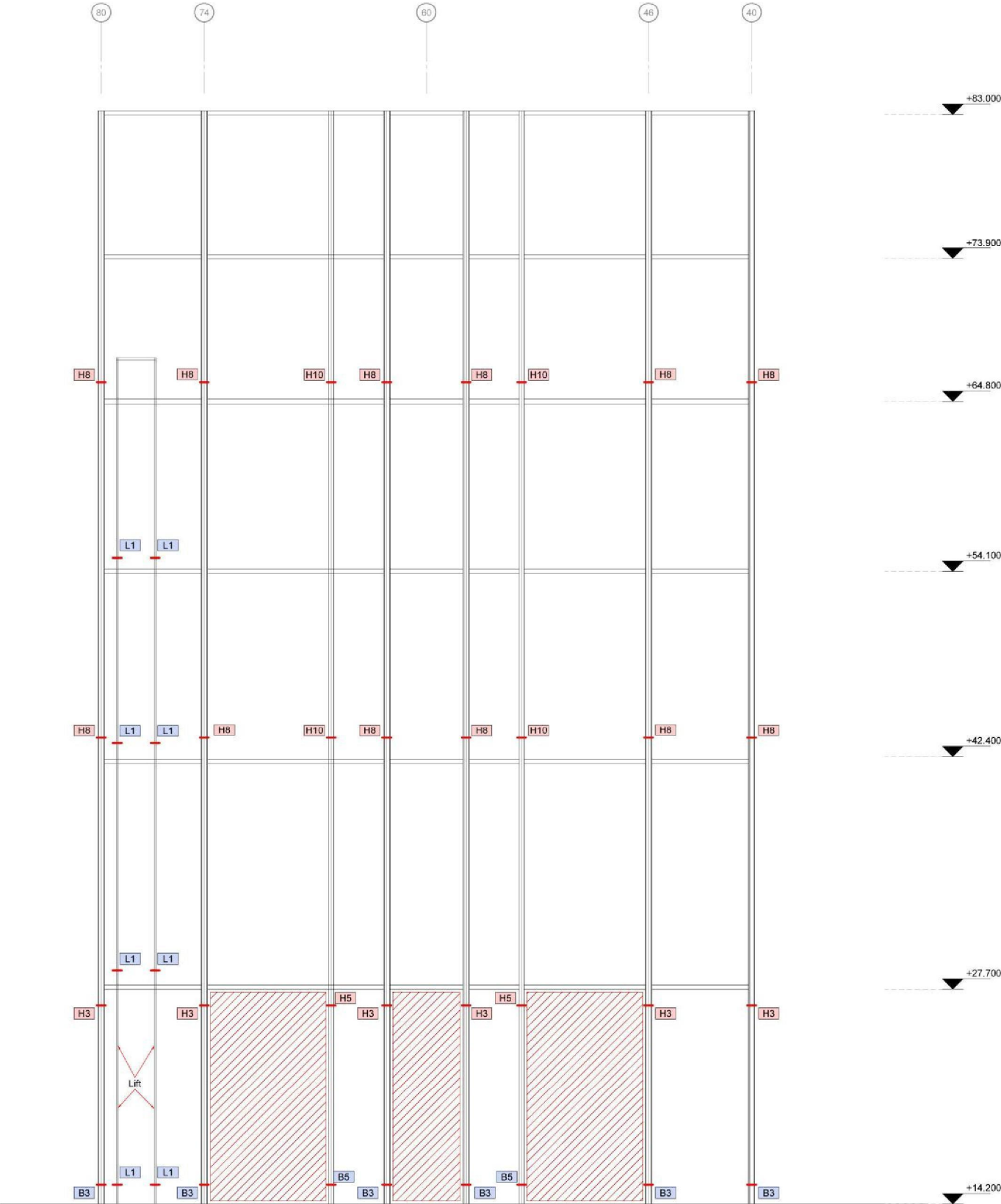
Drawing Number

Revision

C2002

D005

DWG013



1 EASTERN ELEVATION ON GRID LINE Q

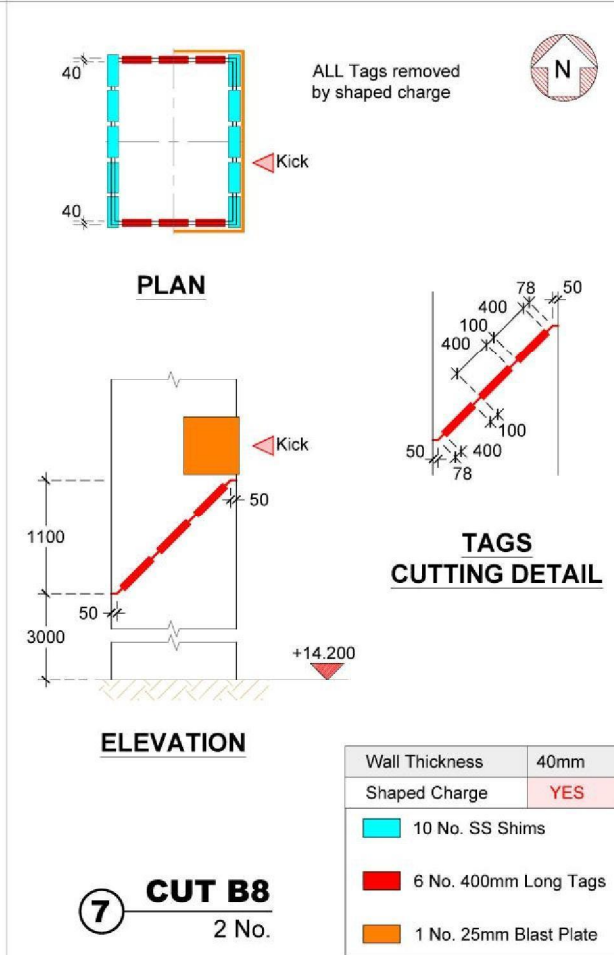
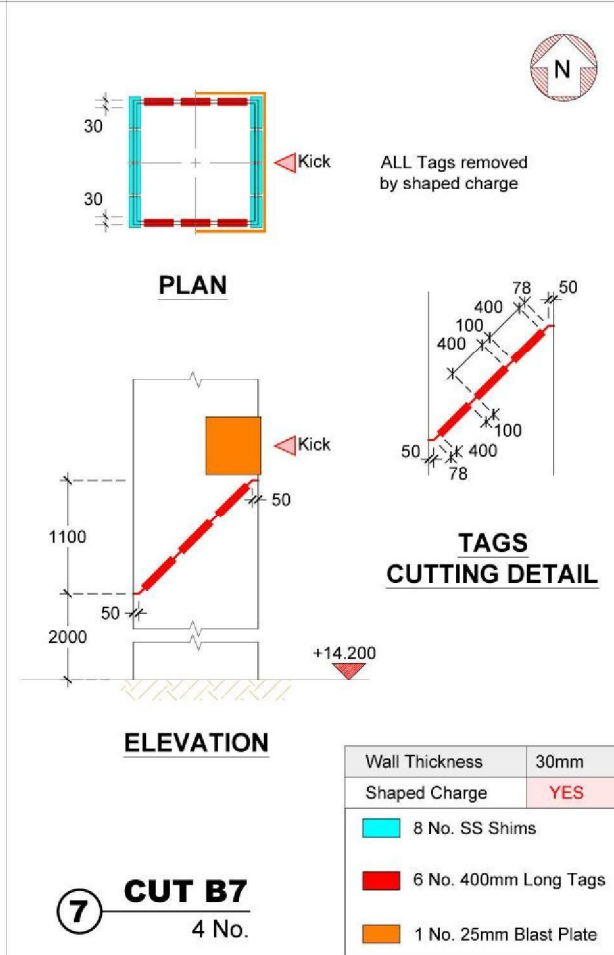
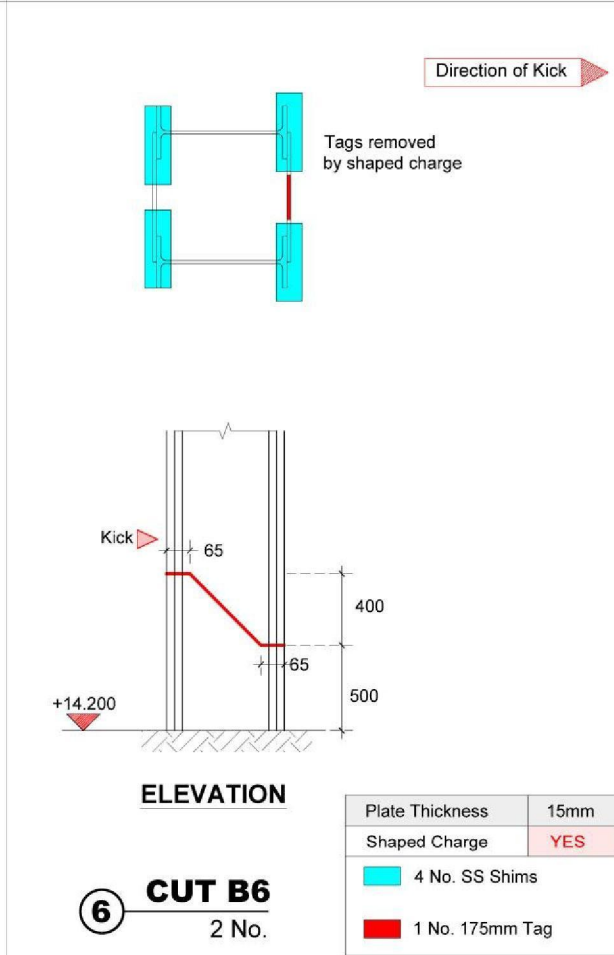
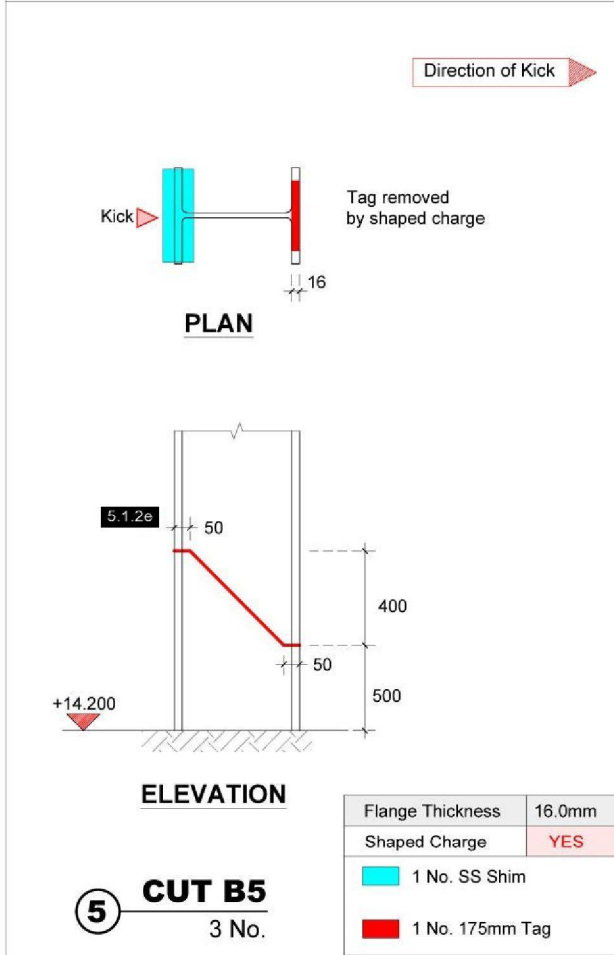
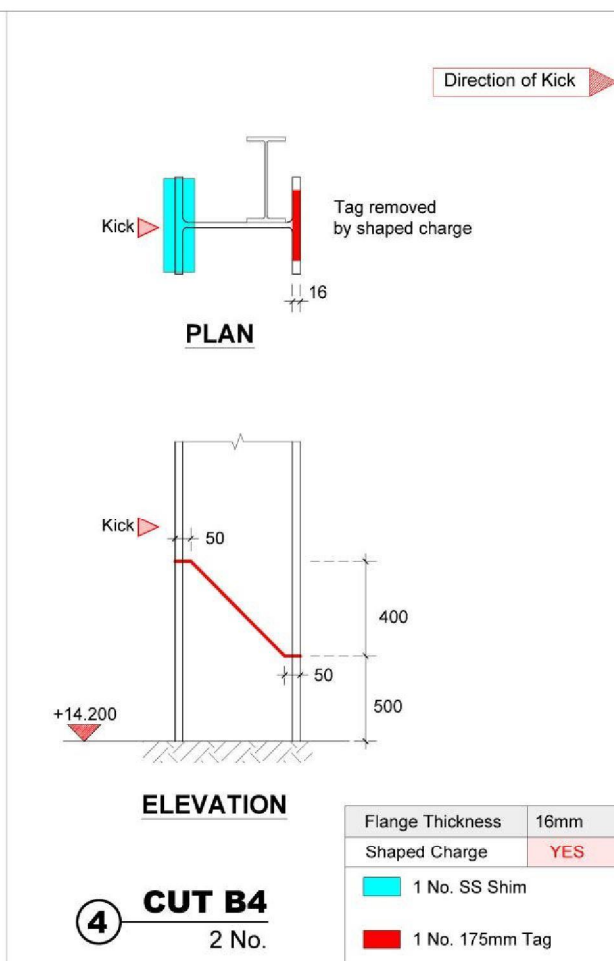
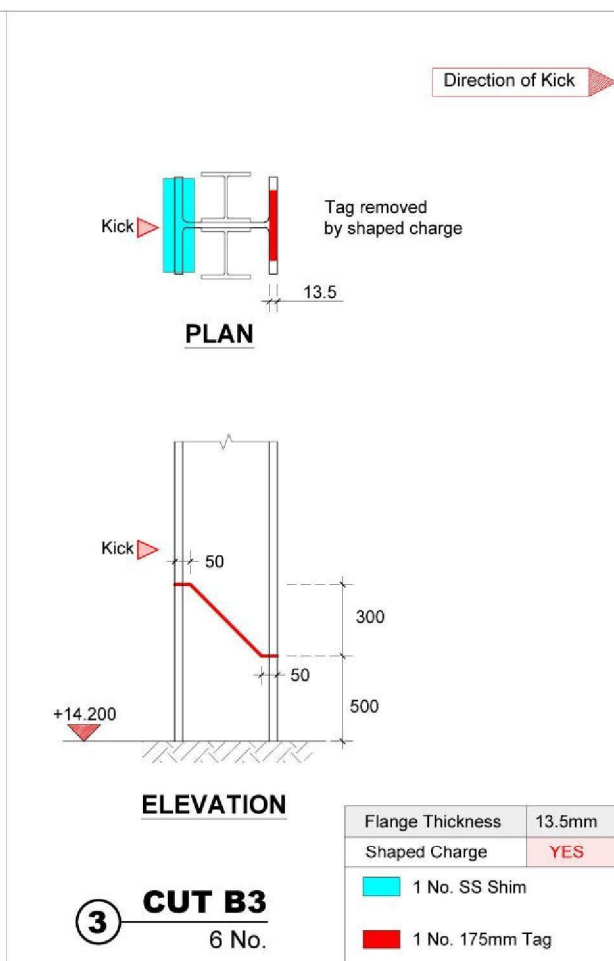
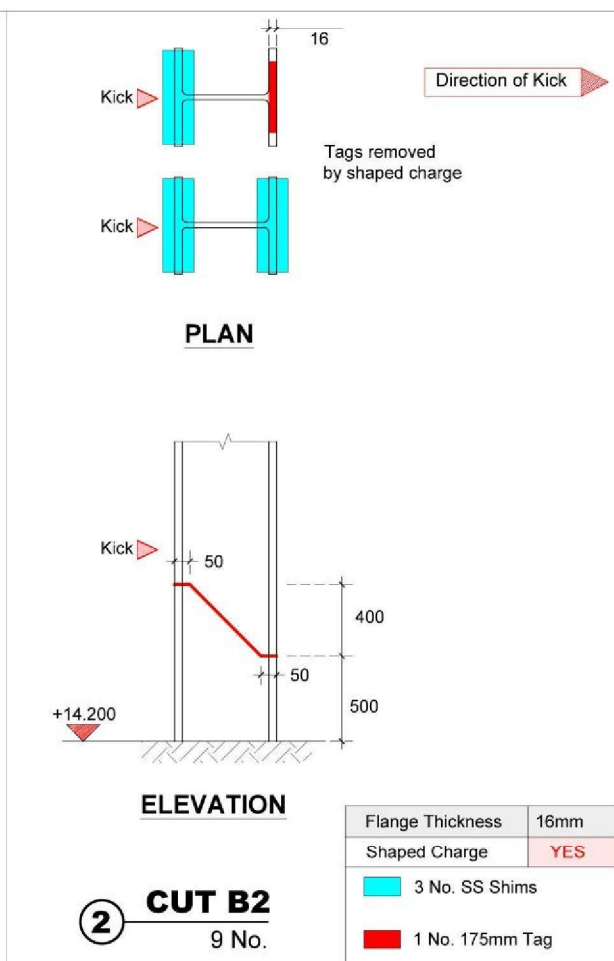
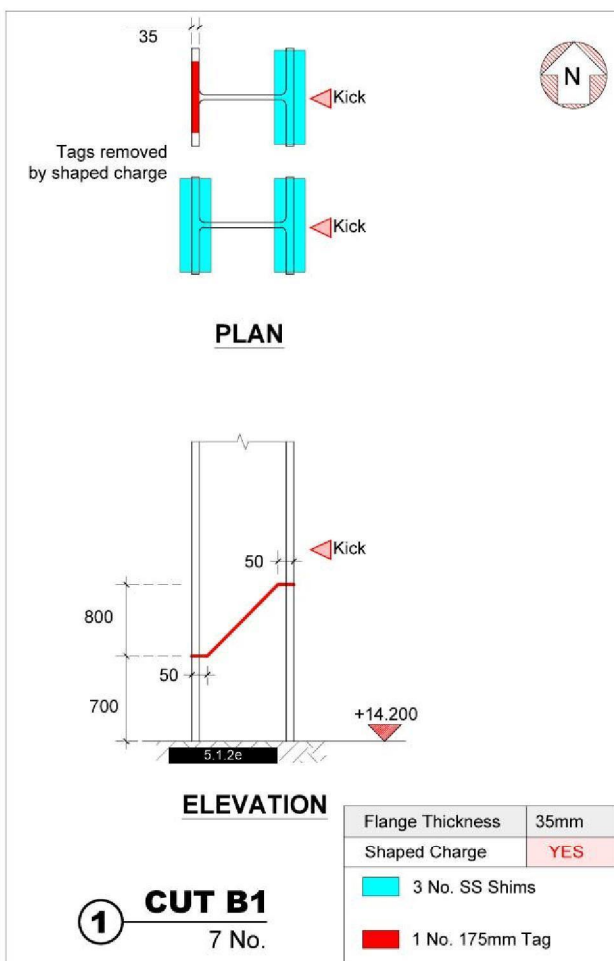
Notes

Key
PRE-WEAKENING / ENABLING WORKS LEGEND
— Pre-Weakening cut
?? Pre-Weakening cut ID

All drawings to be printed in color

Rev	Date	Description	By
 BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA2 6QQ Tel : +44 (0)1322 277731 Fax : +44 (0)1322 284152			

Site			
Central Gelderland Power Plant Hollandiaweg 11, 6541 BL Nijmegen			
Title			
Boiler House Explosive Demolition Preparation Eastern Elevation - Grid Line Q			
Scale at A3	Date	Drawn	Designed
N.T.S.	05-08-22	5.1.2e	5.1.2e
Project Number	Design Number	Drawing Number	Revision
C2002	D005	DWG014	



Notes

- All plate thicknesses to be confirmed on site with Engineering Director before the cuts are performed.
- All cuts markings to be inspected by a designated member of the BAM Engineering team before the cuts are performed.
- Any cuts changes outside the stated tolerances should follow QM24 Procedure.

TAG REMOVAL BY SHAPED CHARGES

- All Tags to be removed by shaped charge, unless noted otherwise.

SHIM SIZES

Unless stated otherwise :-

- SS Shim = 100x6x300mm long
- MS Shim = 100x6x300mm long
- Angle Iron Shim = 50x50x6x150mm long (Cuts BR2-BR5, H12 & X9)

Ref	Qty	SS Shim	MS Shim	Angle Iron Shim
BR1	7	10	10	10
BR2	10	10	10	10
BR3	10	10	10	10
BR4	10	10	10	10
BR5	10	10	10	10
BR6	10	10	10	10
BR7	10	10	10	10
BR8	10	10	10	10
BR9	10	10	10	10
BR10	10	10	10	10
BR11	10	10	10	10
BR12	10	10	10	10
BR13	10	10	10	10
BR14	10	10	10	10
BR15	10	10	10	10
BR16	10	10	10	10
BR17	10	10	10	10
BR18	10	10	10	10
BR19	10	10	10	10
BR20	10	10	10	10
BR21	10	10	10	10
BR22	10	10	10	10
BR23	10	10	10	10
BR24	10	10	10	10
BR25	10	10	10	10
BR26	10	10	10	10
BR27	10	10	10	10
BR28	10	10	10	10
BR29	10	10	10	10
BR30	10	10	10	10
BR31	10	10	10	10
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BR95	10	10	10	10
BR96	10	10	10	10
BR97	10	10	10	10
BR98	10	10	10	10
BR99	10	10	10	10
BR100	10	10	10	10

Key

- Stainless Steel Shims (SS)
- Mild Steel Shims (MS)
- Angle Iron Shims
- Tag
- Blast Plate

All drawings to be printed in color

Rev	Date	Description	By
1	05-08-22	5.1.2e	5.1.2e

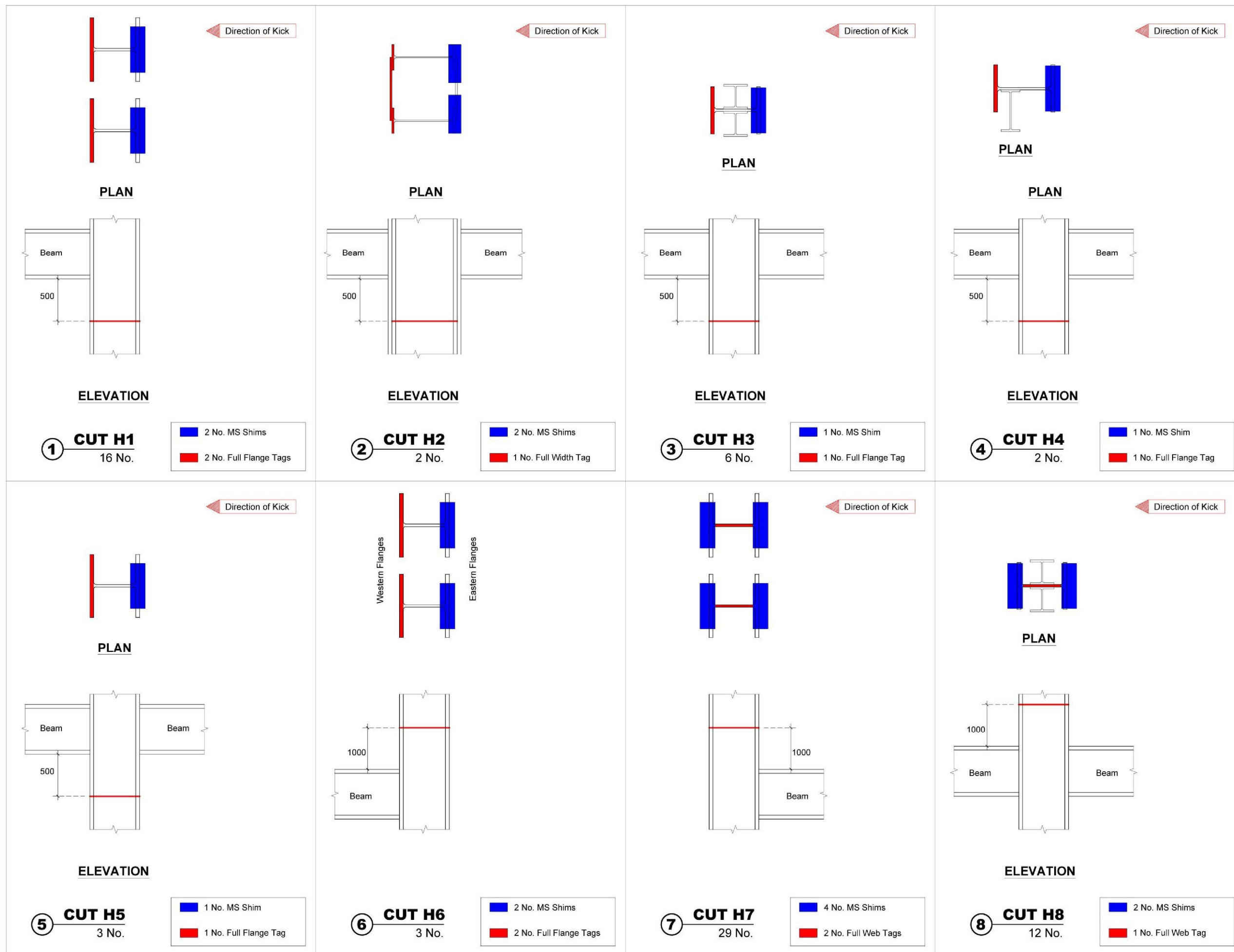
BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park,
Dartford, Kent, DA2 6QQ
Tel : +44 (0)1322 277731 Fax : +44 (0)1322 284152

Site: Central Gelderland Power Plant
Hollandiaweg 11, 6541 BL Nijmegen

Title: Boiler House
Explosive Demolition Preparation
Pre-Weakening Details - Sheet 1

Scale at A3	Date	Drawn	Designed
NTS	05-08-22	5.1.2e	5.1.2e

Project Number	Design Number	Drawing Number	Revision
C2002	D005	DWG015	



Notes

- All plate thicknesses to be confirmed on site with Engineering Director before the cuts are performed.
- All cuts markings to be inspected by a designated member of the BAM Engineering team before the cuts are performed.
- Any cuts changes outside the stated tolerances should follow QM24 Procedure.

TAG REMOVAL BY SHAPED CHARGES

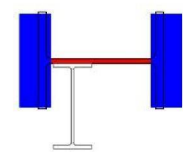
- All Tags to be removed by shaped charge, unless noted otherwise.

SHIM SIZES

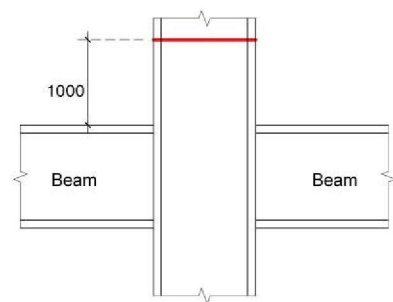
Unless stated otherwise :-

- SS Shim = 100x6x300mm long
- MS Shim = 100x6x300mm long
- Angle Iron Shim = 50x50x6x150mm long (Cuts BR2~BR5, H12 & X9)

Cut Ref	Qty	SS Shim		MS Shim		ISA Shim	
		Per cut	101/SL	Per cut	101/SL	Per cut	101/SL
B1	7	5	21				
B2	5	5	27				
B3	6	1	6				
B4	2	1	2				
B5	3	1	3				
B6	2		4				
B7	4	0	32				
B8	2		32	32			
B9	2					2	4
B10	10					4	64
B11	10					2	4
B12	2			2	32		
B13	2			2	4		
B14	0			1	4		
B15	0			1	0		
B16	1			2	0		
B17	23			4	154		
B18	12			2	34		
B19	4			2	0		
B20	0			2	14		
B21	2			1	2		
B22	2					2	4
B23	4			1	20		
B24	4			10	22		
B25	2			10	20		
B26	1			2	18		
B27	10			2	32		
B28	10			1	02		
B29	4	0	32				
B30	2	10	20				
B31	18					1	10
B32	2					2	4
B33							
B34							
B35							
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B281							
B282							
B283							
B284							
B285							
B286							
B287							
B288							



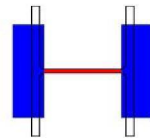
PLAN



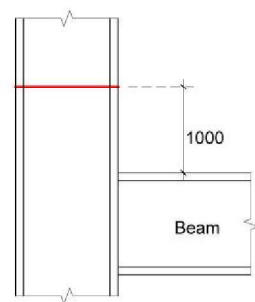
ELEVATION

1 CUT H9
4 No.

- 2 No. MS Shims
- 1 No. Full Web Tag

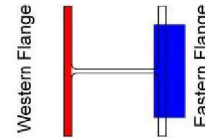


PLAN

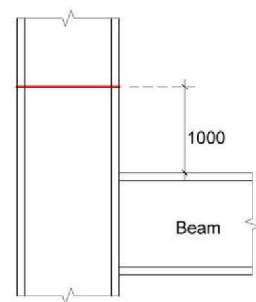


2 CUT H10
8 No.

- 2 No. MS Shims
- 1 No. Full Web Tag

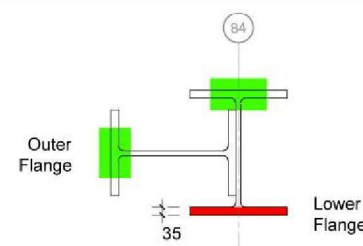


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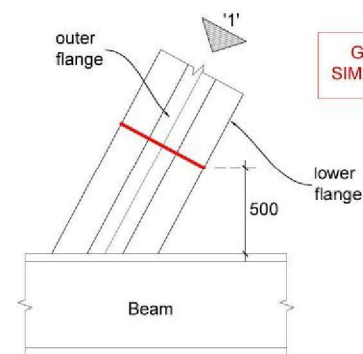


3 CUT H11
2 No.

- 1 No. MS Shims
- 1 No. Full Flange Tag



VIEW '1'

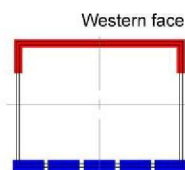


ELEVATION

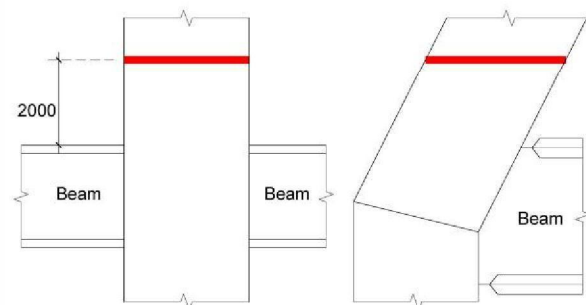
4 CUT H12
2 No.

- 2 No. Angle Iron Shims
50x50x6x150mm long.
- 1 No. Full Flange Tag

GRID LINE 36 CUT
SIMILAR BUT HANDED.



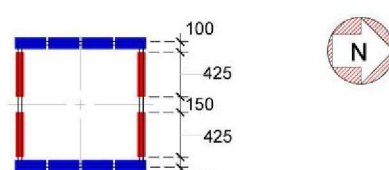
PLAN



ELEVATIONS

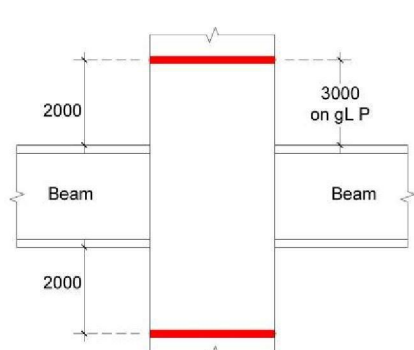
5 CUT H13
4 No.

- 5 No. MS Shims
- 1 No. Full Length Tag
- 2 No. 150mm Return Tags



PLAN

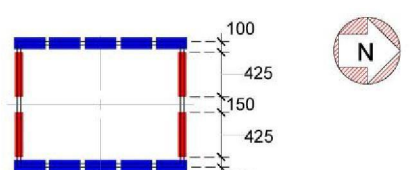
ALL Tags removed
by shaped charge



ELEVATION

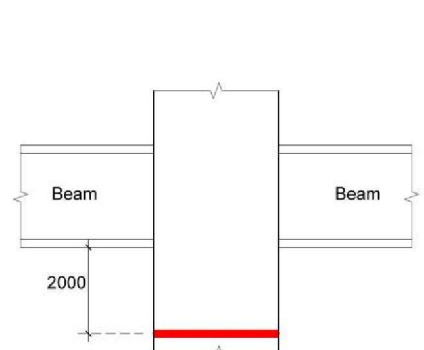
6 CUT H14
4 No.

- | | |
|-----------------------|------|
| Wall Thickness | 30mm |
| Shaped Charge | YES |
| 8 No. MS Shims | |
| 4 No. 425mm Long Tags | |



PLAN

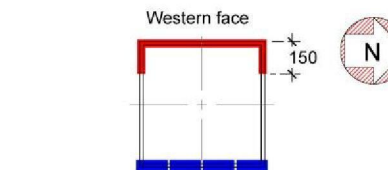
ALL Tags removed
by shaped charge



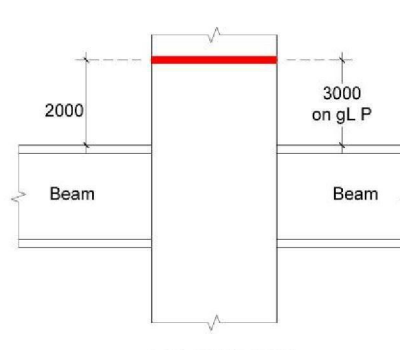
ELEVATION

7 CUT H15
2 No.

- | | |
|-----------------------|------|
| Wall Thickness | 40mm |
| Shaped Charge | YES |
| 10 No. MS Shims | |
| 4 No. 425mm long Tags | |



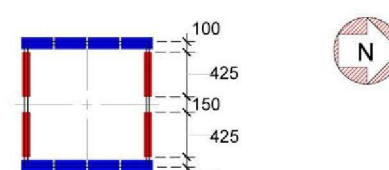
PLAN



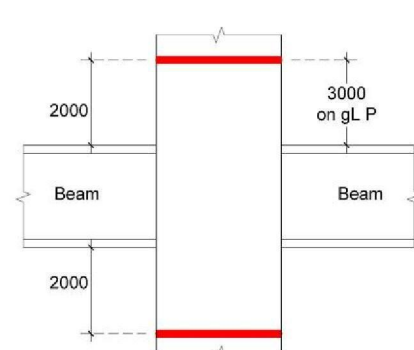
ELEVATION

8 CUT H16
4 No.

- 4 No. MS Shims
- 1 No. Full Length Tag
- 2 No. 150mm Return Tags



PLAN



ELEVATION

9 CUT H17
10 No.

- 8 No. MS Shims
- 4 No. 425mm Long Tags

- Notes
- All plate thicknesses to be confirmed on site with Engineering Director before the cuts are performed.
 - All cuts markings to be inspected by a designated member of the BAM Engineering team before the cuts are performed.
 - Any cuts changes outside the stated tolerances should follow QM24 Procedure.

TAG REMOVAL BY SHAPED CHARGES

- All Tags to be removed by shaped charge, unless noted otherwise.

SHIM SIZES

Unless stated otherwise :-

- SS Shim = 100x6x300mm long
- MS Shim = 100x6x300mm long
- Angle Iron Shim = 50x50x6x150mm long (Cuts BR2-BR5, H12 & X9)

Cut Ref	Qty	SS Shim	MS Shim	MSA Shim
		Per cut TOTAL	Per cut TOTAL	Per cut TOTAL
BR1	2	25		
BR2	3	37		
BR3	2	25		
BR4	2	1	8	
BR5	3	1	3	
BR6	2	2	8	
BR7	4	32		
BR8	2	10	29	
BR9	3			
BR10	2			
BR11	22			2
BR12	18			
BR13	2			2
BR14	1	16	3	12
BR15	3		2	4
BR16	3		1	3
BR17	3		2	5
BR18	23	4	3	24
BR19	12		4	18
BR20	4		2	6
BR21	3		2	16
BR22	3			
BR23	1			2
BR24	4		19	20
BR25	4		18	18
BR26	4		18	18
BR27	10		30	30
BR28	1	12	1	12
BR29	1	4	8	12
BR30	2	10	29	
BR31	2			
BR32	2			2

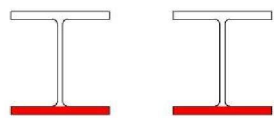
SS Shim 100x5x300mm	171	MS Shim 100x5x300mm	419	MSA Shim 100x5x300mm
------------------------	-----	------------------------	-----	-------------------------

- Key
- Stainless Steel Shims (SS)
 - Mild Steel Shims (MS)
 - Angle Iron Shims
 - Tag
 - Blast Plate

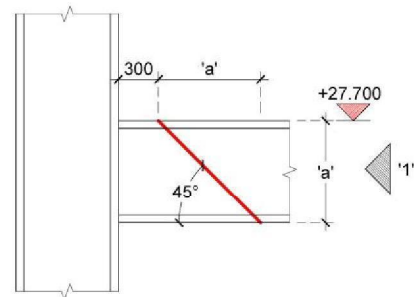
Drawing References

All drawings to be printed in color

Rev	Date	Description	By
BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA2 6QQ Tel : +44 (0)1322 277731 Fax : +44 (0)1322 284152			
Site Central Gelderland Power Plant Hollandiaweg 11, 6541 BL Nijmegen			
Title Boiler House Explosive Demolition Preparation Pre-Weakening Details - Sheet 3			
Scale at A3	Date	Drawn	Designed
NTS	05-08-22	5.1.2e	5.1.2e
Project Number	Design Number	Drawing Number	Revision
C2002	D005	DWG017	



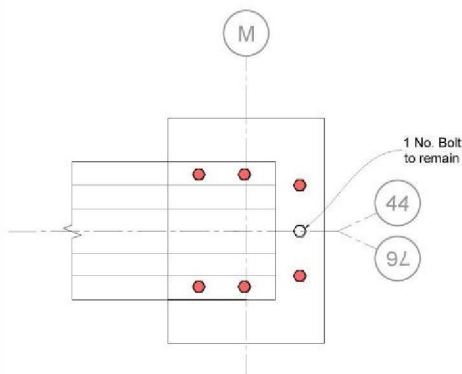
VIEW '1'



ELEVATION

1 CUT X1
7 No.

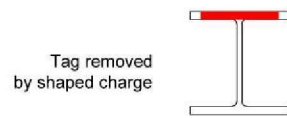
2 No. Full Flange Tags



PLAN AT LEVEL +48.300

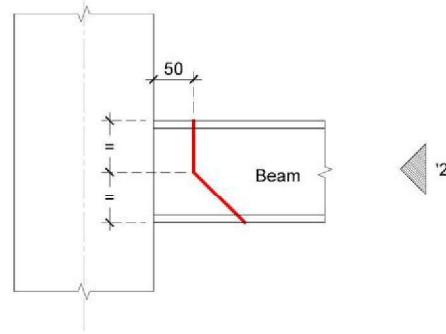
BLOW 6 No. BOLTS AND
LEAVE 1 NO. BOLT AS IS.

2 CUT X2
2 No.



Tag removed
by shaped charge

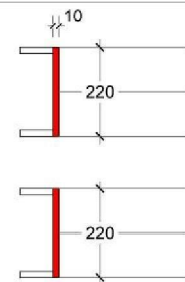
VIEW '2'



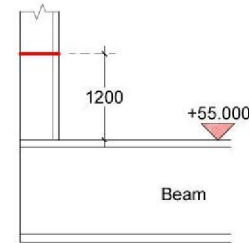
ELEVATION

3 CUT X3
6 No.

Shaped Charge YES
1 No. 175mm long Tag



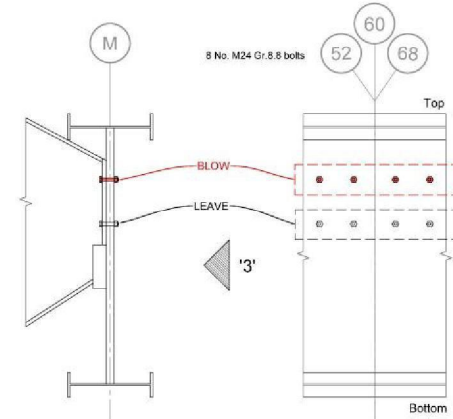
PLAN



ELEVATION

4 CUT X4
1 No.

Web Thickness 10mm
Shaped Charge YES
2 No. Full Web Tags

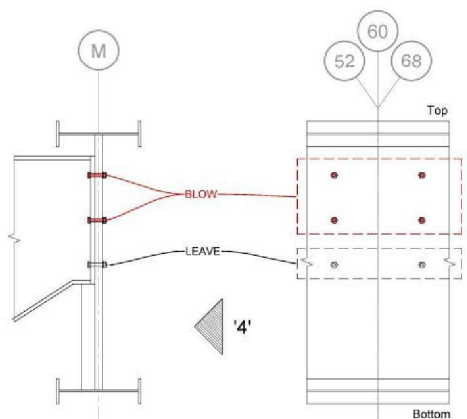


ELEVATION

VIEW '3'

5 CUT X5
5 No.

BLOW TOP 4 No. BOLTS
LEAVE BOTTOM 4 NO. BOLT.

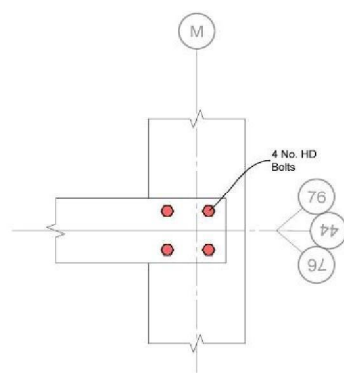


ELEVATION

VIEW '4'

6 CUT X6
3 No.

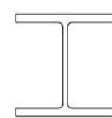
BLOW TOP 4 No. BOLTS
LEAVE 2 No. BOLTS



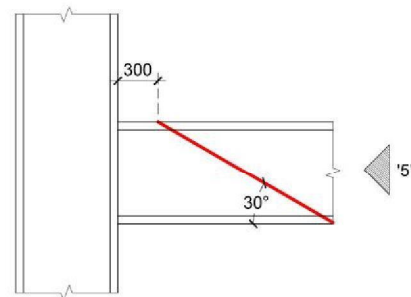
PLAN

7 CUT X7
3 No.

BLOW ALL 4 No. BOLTS

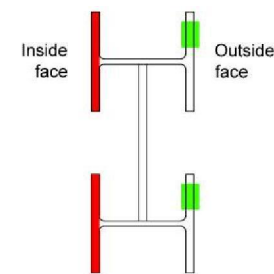


VIEW '5'

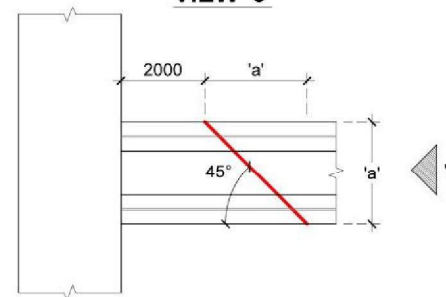


ELEVATION

8 CUT X8
16 No.



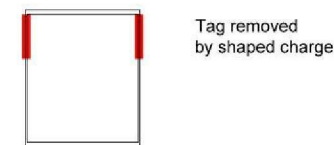
VIEW '6'



ELEVATION

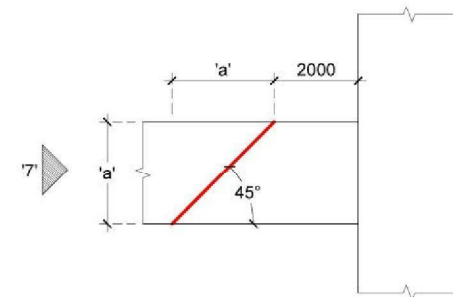
9 CUT X9
10 No.

2 No. Angle Iron Shims
50x50x6x150mm long.
2 No. Full Flange Tags



Tag removed
by shaped charge

VIEW '7'



ELEVATION

10 CUT X10
4 No.

Wall Thickness 15mm
Shaped Charge YES
2 No. 425mm long Tags.

Notes

- All plate thicknesses to be confirmed on site with Engineering Director before the cuts are performed.
- All cuts markings to be inspected by a designated member of the BAM Engineering team before the cuts are performed.
- Any cuts changes outside the stated tolerances should follow QM24 Procedure.

TAG REMOVAL BY SHAPED CHARGES

- All Tags to be removed by shaped charge, unless noted otherwise.

SHIM SIZES

Unless stated otherwise :-

- SS Shim = 100x6x300mm long
- MS Shim = 100x6x300mm long
- Angle Iron Shim = 50x50x6x150mm long (Cuts BR2-BR5, H12 & X9)

Cut Ref.	Qty	SS Shim	MS Shim	Angle Iron Shim
BR1	2	2		
BR2	2	2		
BR3	2	2		
BR4	2	2		
BR5	2	2		
BR6	2	2		
BR7	2	2		
BR8	2	2		
BR9	2	2		
BR10	2	2		
BR11	2	2		
BR12	2	2		
BR13	2	2		
BR14	2	2		
BR15	2	2		
BR16	2	2		
BR17	2	2		
BR18	2	2		
BR19	2	2		
BR20	2	2		
BR21	2	2		
BR22	2	2		
BR23	2	2		
BR24	2	2		
BR25	2	2		
BR26	2	2		
BR27	2	2		
BR28	2	2		
BR29	2	2		
BR30	2	2		
BR31	2	2		
BR32	2	2		
BR33	2	2		
BR34	2	2		
BR35	2	2		
BR36	2	2		
BR37	2	2		
BR38	2	2		
BR39	2	2		
BR40	2	2		
BR41	2	2		
BR42	2	2		
BR43	2	2		
BR44	2	2		
BR45	2	2		
BR46	2	2		
BR47	2	2		
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BR72	2	2		
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BR90	2	2		
BR91	2	2		
BR92	2	2		
BR93	2	2		
BR94	2	2		
BR95	2	2		
BR96	2	2		
BR97	2	2		
BR98	2	2		
BR99	2	2		
BR100	2	2		

Key

- Stainless Steel Shims (SS)
- Mild Steel Shims (MS)
- Angle Iron Shims
- Tag
- Blast Plate

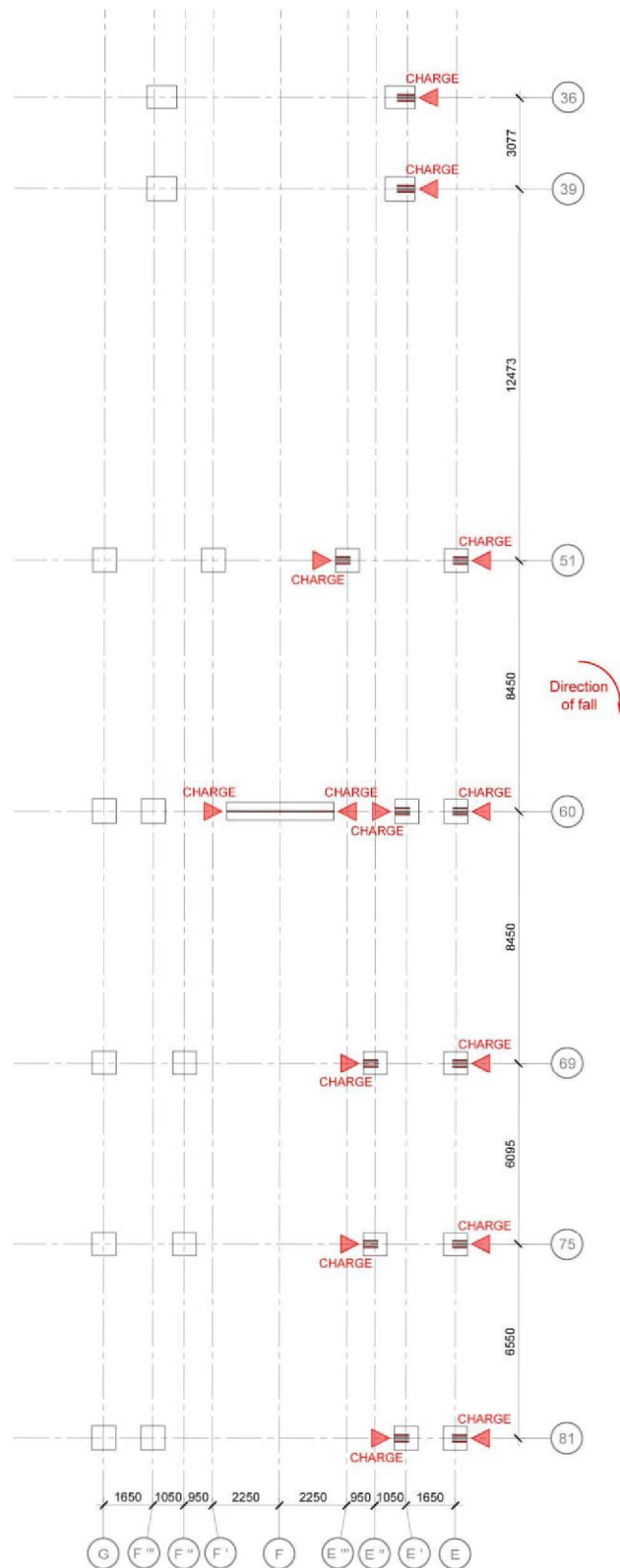
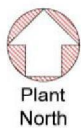
Drawing References

All drawings to be printed in color

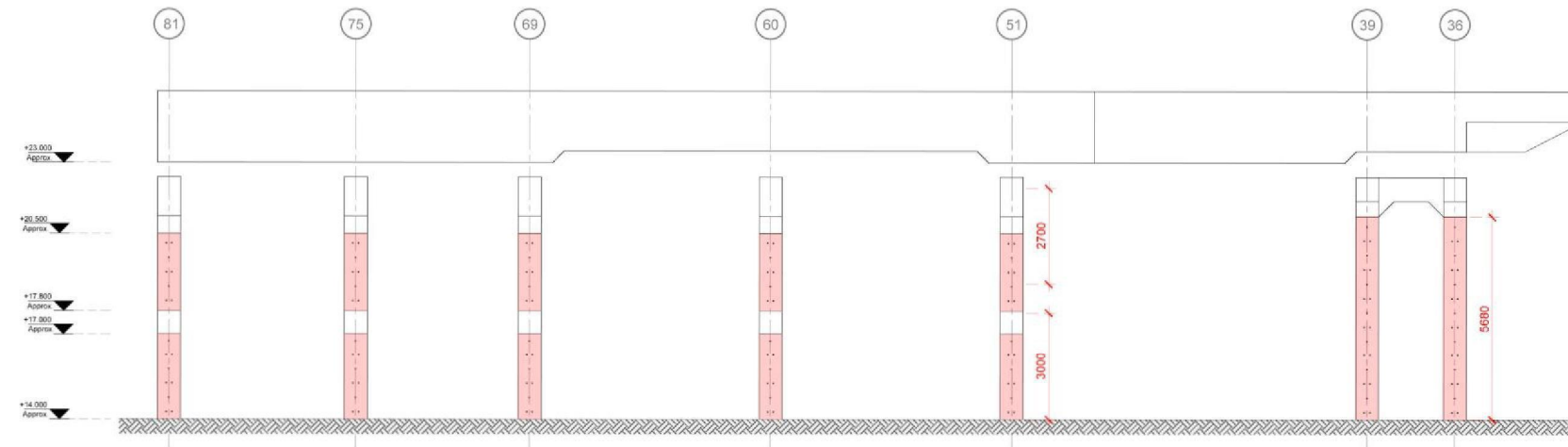
Rev	Date	Description	By

BROWN & MASON
Anson House, Schooner Court,
Crossways Business Park,
Dartford, Kent, DA2 6QQ
Tel : +44 (0)1322 277731 Fax : +44 (0)1322 284152

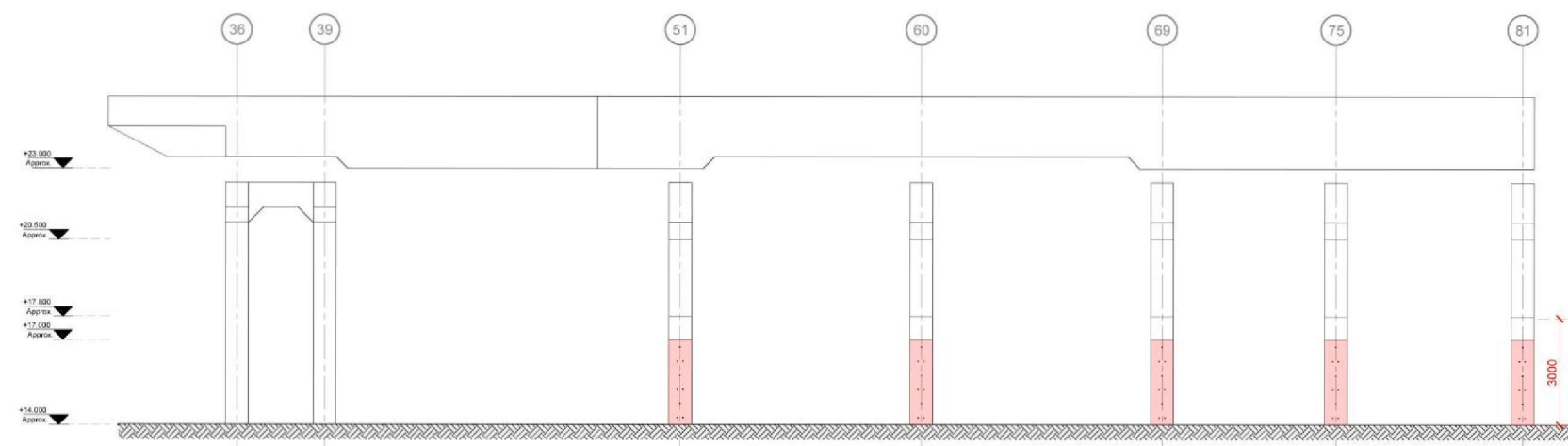
Site			
Central Gelderland Power Plant Hollandiaweg 11, 6541 BL Nijmegen			
Title			
Boiler House Explosive Demolition Preparation Pre-Weakening Details - Sheet 4			
Scale at A3	Date	Drawn	Designed
NTS	05-08-22	5.1.2e	5.1.2e
Project Number	Design Number	Drawing Number	Revision
C2002	D005	DWG018	



① PLAN ON LEVEL +0.150

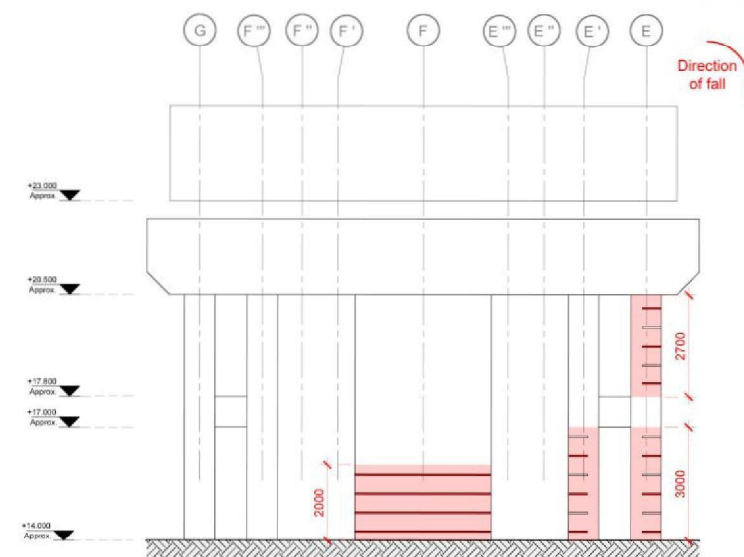


② WEST ELEVATION ON GRID LINE E

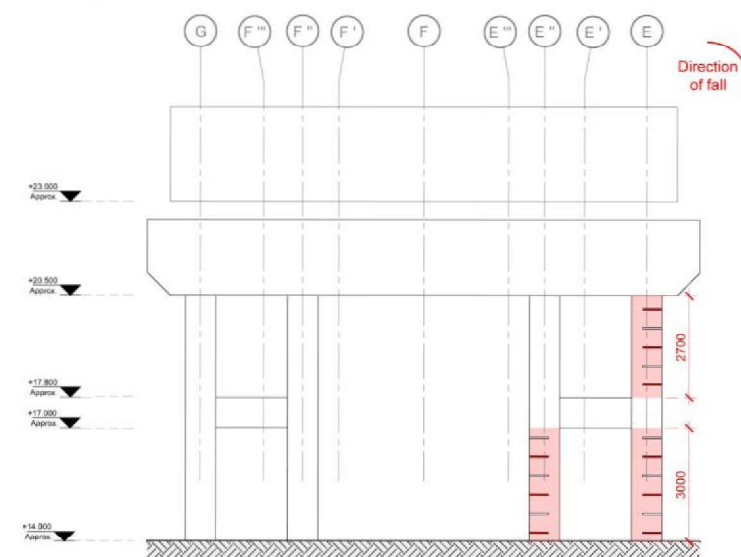


③ EAST ELEVATION ON GRID LINES E', E'' & E'''

⚠ THE INTEGRITY OF THE REMAINING BEAMS & COLUMNS TO BE MAINTAINED.



④ SOUTH ELEVATION ON GRID LINE 60



⑤ SOUTH ELEVATION ON GRID LINES 69 & 75
(Grid Lines 51 & 81 similar)



- Notes
- All columns are 800 x 800 sq. except for the following :-
Grid Ref = E'36 & E'39
Column Dims = 800(w) x 1000(d)
 - All walls are 600 (w) x 3600 (l)

Key

CONCRETE COLUMN / BEAM PRE-WEAKENING LEGEND

Concrete drilling

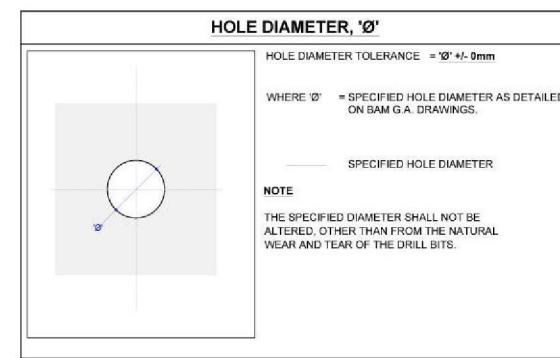
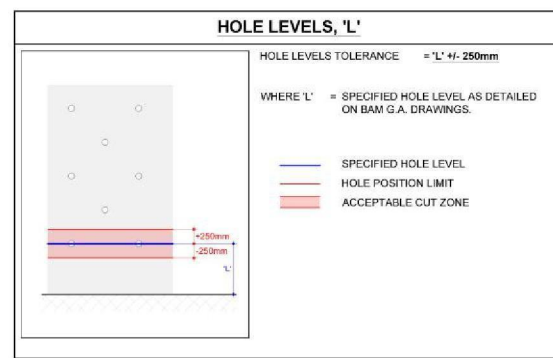
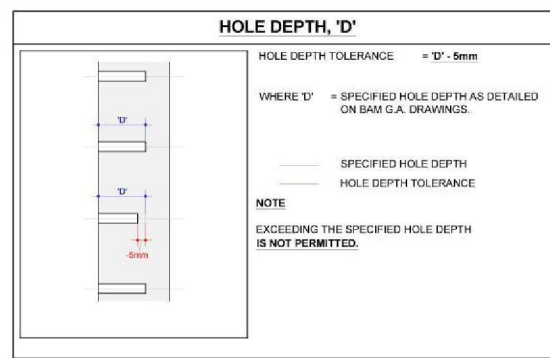
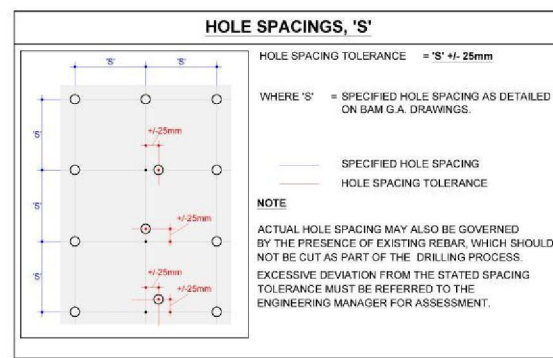
Drawing References

C2002 / D005 / DWG020	General Arrangement
C2002 / D005 / DWG021	Pre-Weakening Details - Sheet 1
C2002 / D005 / DWG022	Pre-Weakening Details - Sheet 2
C2002 / D005 / DWG023	Detonation Sequence

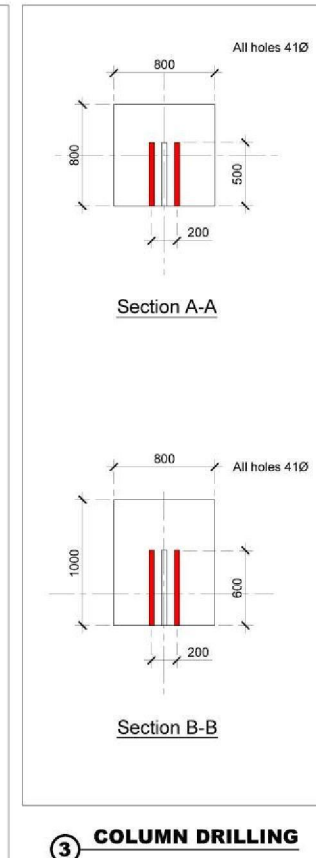
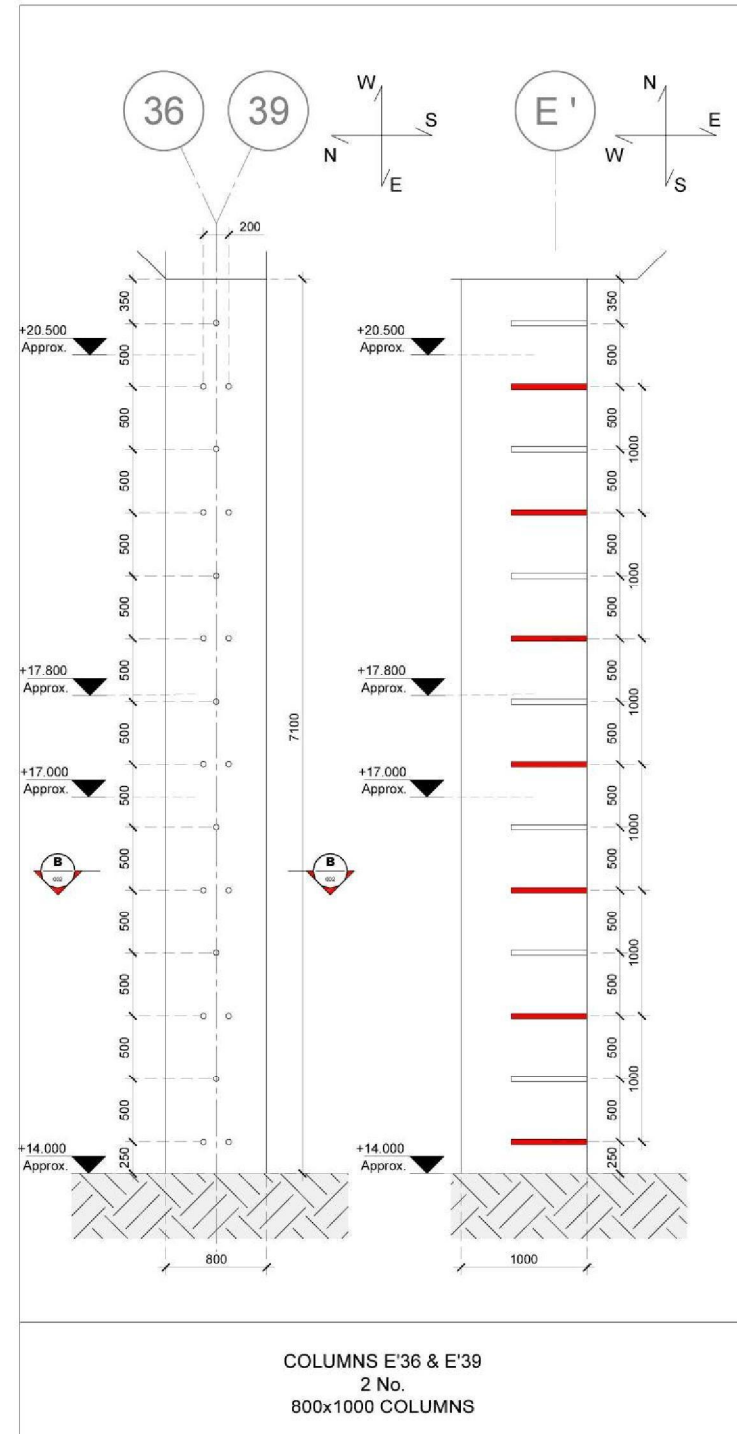
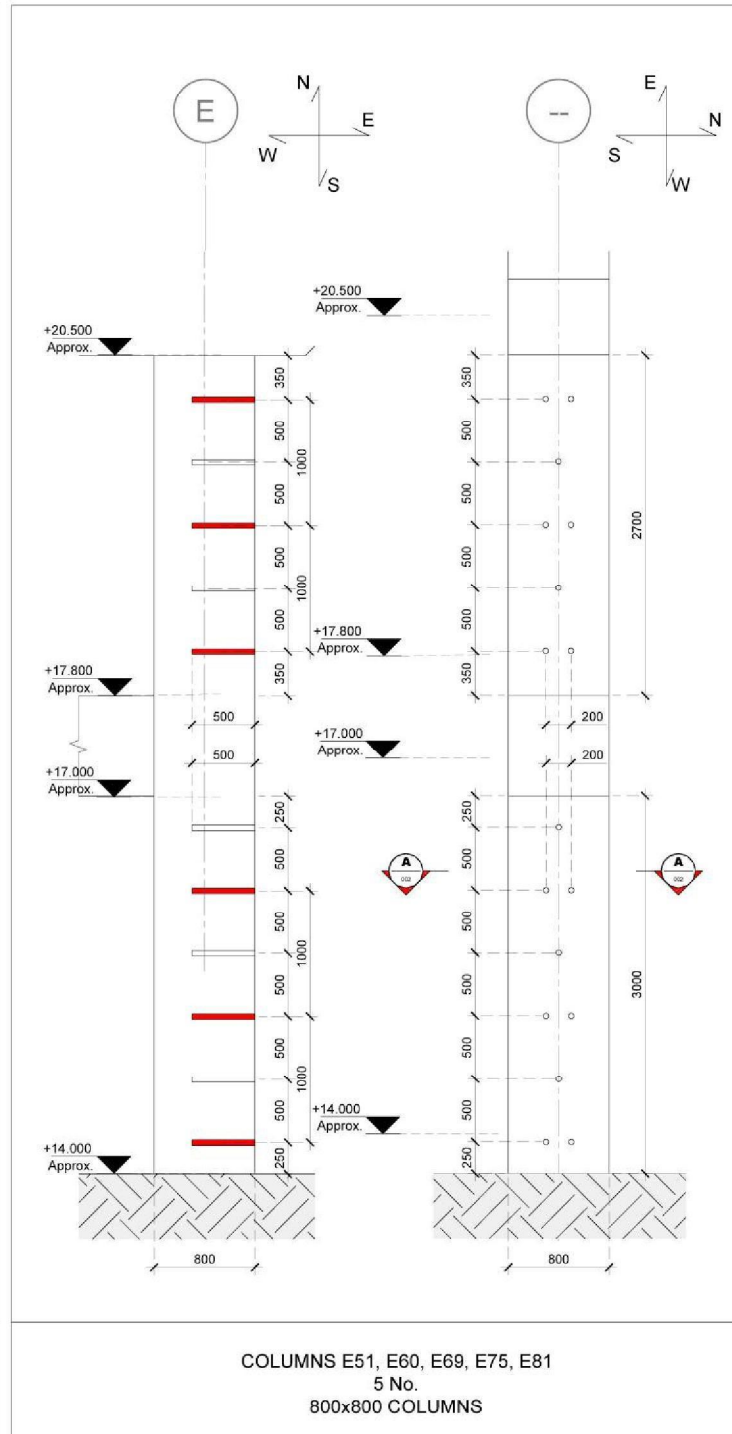
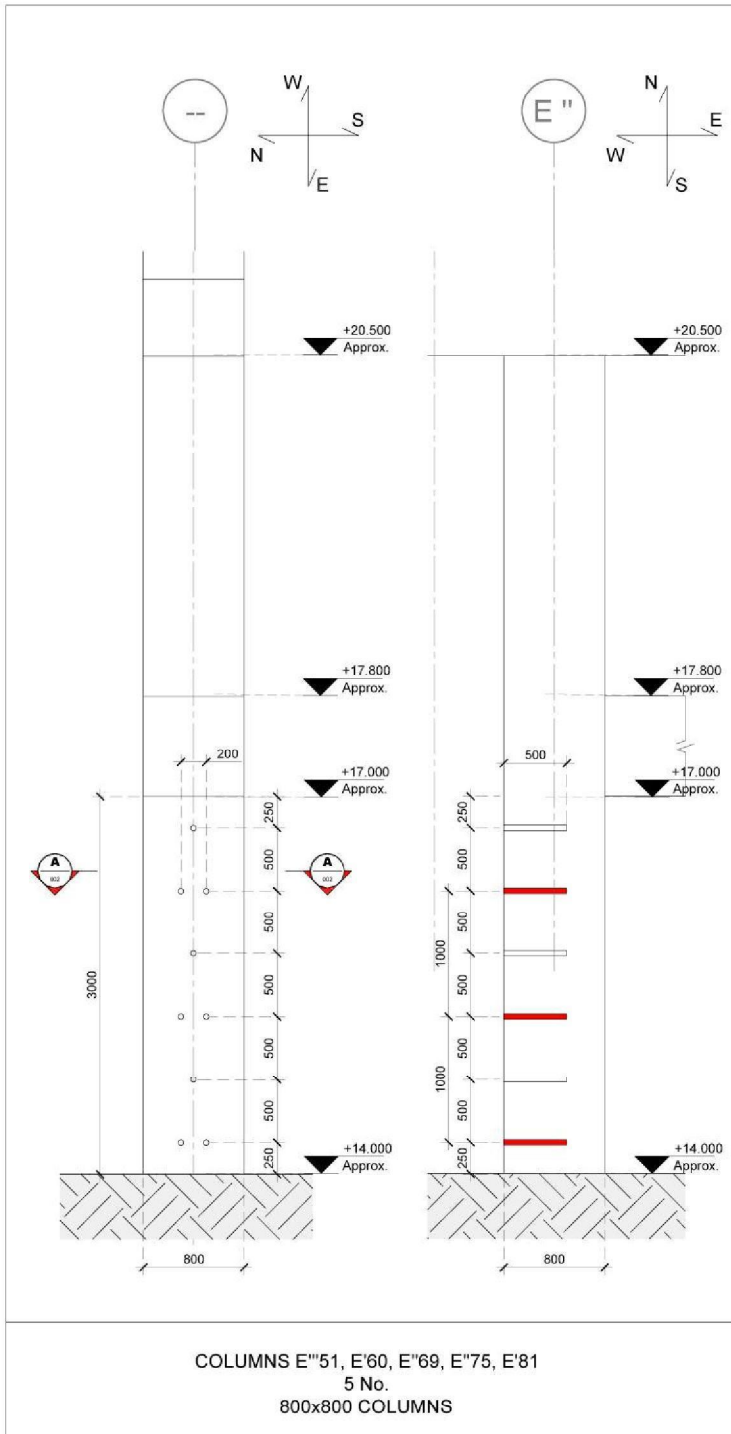
All drawings to be printed in color

Rev	Date	Description	By
BROWN & MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA2 6QQ Tel : +44 (0)1322 277731 Fax : +44 (0)1322 284152			

Site Central Gelderland Power Plant Hollandiaweg 11, 6541 BL Nijmegen			
Title Turbine Pedestal Explosive Demolition Preparation General Arrangement			
Scale at A3	Date	Drawn	Designed
N.T.S.	21-07-22	5.1.2e	5.1.2e
Project Number	Design Number	Drawing Number	Revision
C2002	D005	DWG020	



1 STRUCTURAL CONCRETE TOLERANCES



2 COLUMN PLANS & ELEVATIONS

Notes

DESIGNER'S RISK ASSESSMENT

- For the DRA refer to the calculations.
- Note: The weakened structure has not been designed to satisfy the requirements for disproportionate collapse. It is imperative that all precautions are taken not to remove or impair any structural element of the building beyond the prescribed cuts. Should there be any structural stability concern, work must be stopped and the premises vacated. The issue should be reported immediately to the Engineering Director in the first instance.

Allowable wind speed

- The limiting gust wind speed is 60km/h (16.7m/s).
- Wind speed forecasts should be used to plan the cuts.
- Wind speed monitoring to be put in place weakening or post-weakening operations to be stopped and the premises (the drop zone) vacated immediately should the limit be exceeded.

Works site access

- During the prepping of the columns/walls/beams and up to blowdown other non-related operations to be eliminated/limited in the area to avoid accidental collision with the structure and premature collapse. The attendance by operatives and/or visitors should be by absolute necessity only.

Competence

- The structural weakening to be supervised by BAM Management and conducted in accordance with BAM QM24 'Structural Pre-Weakening' flow chart and BAM272 'Structural Pre-Weakening Quality Control Checklist'.

Exclusion Zones

- Plant not permitted within 2m of columns once pre-weakening commences.
- MEWPS are an exception but are to be operated by experienced and authorised personnel only.

HOLE DETAILS

Unless stated otherwise:-

Hole Diameter = 410 blind hole

Drilling depth

800 Deep Column = 500mm deep

1000 Deep Column= 600mm deep

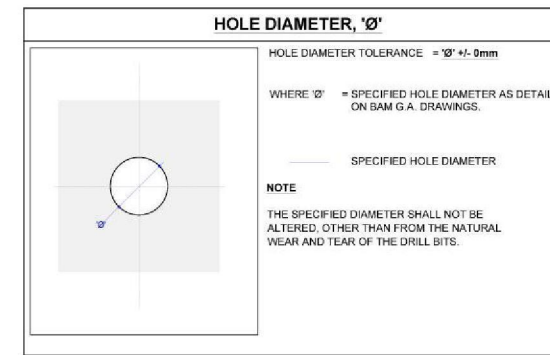
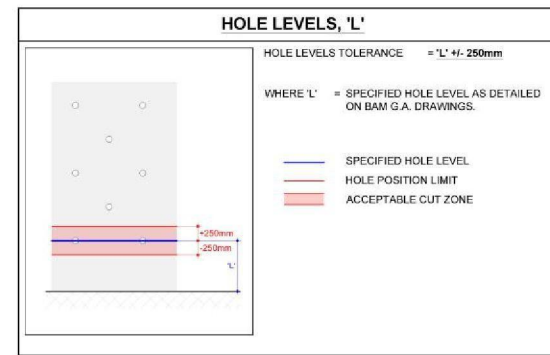
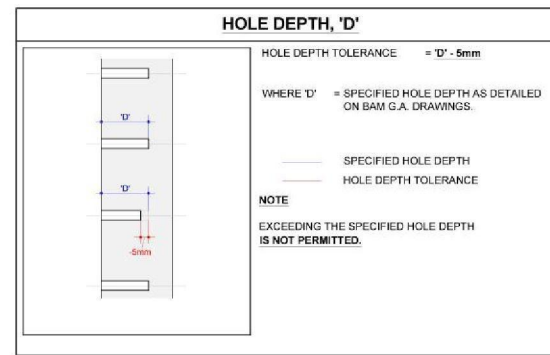
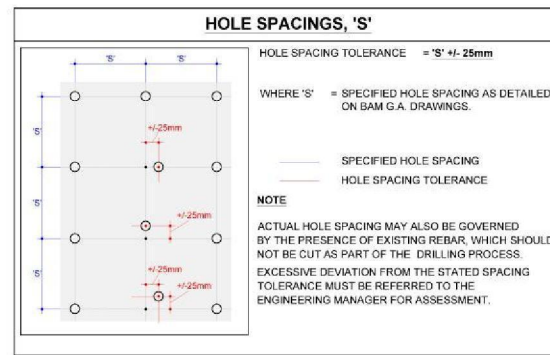
Key

Drawing References

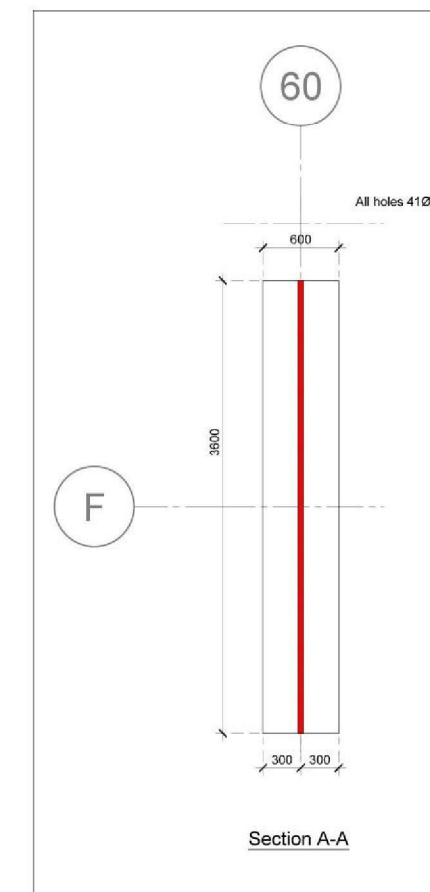
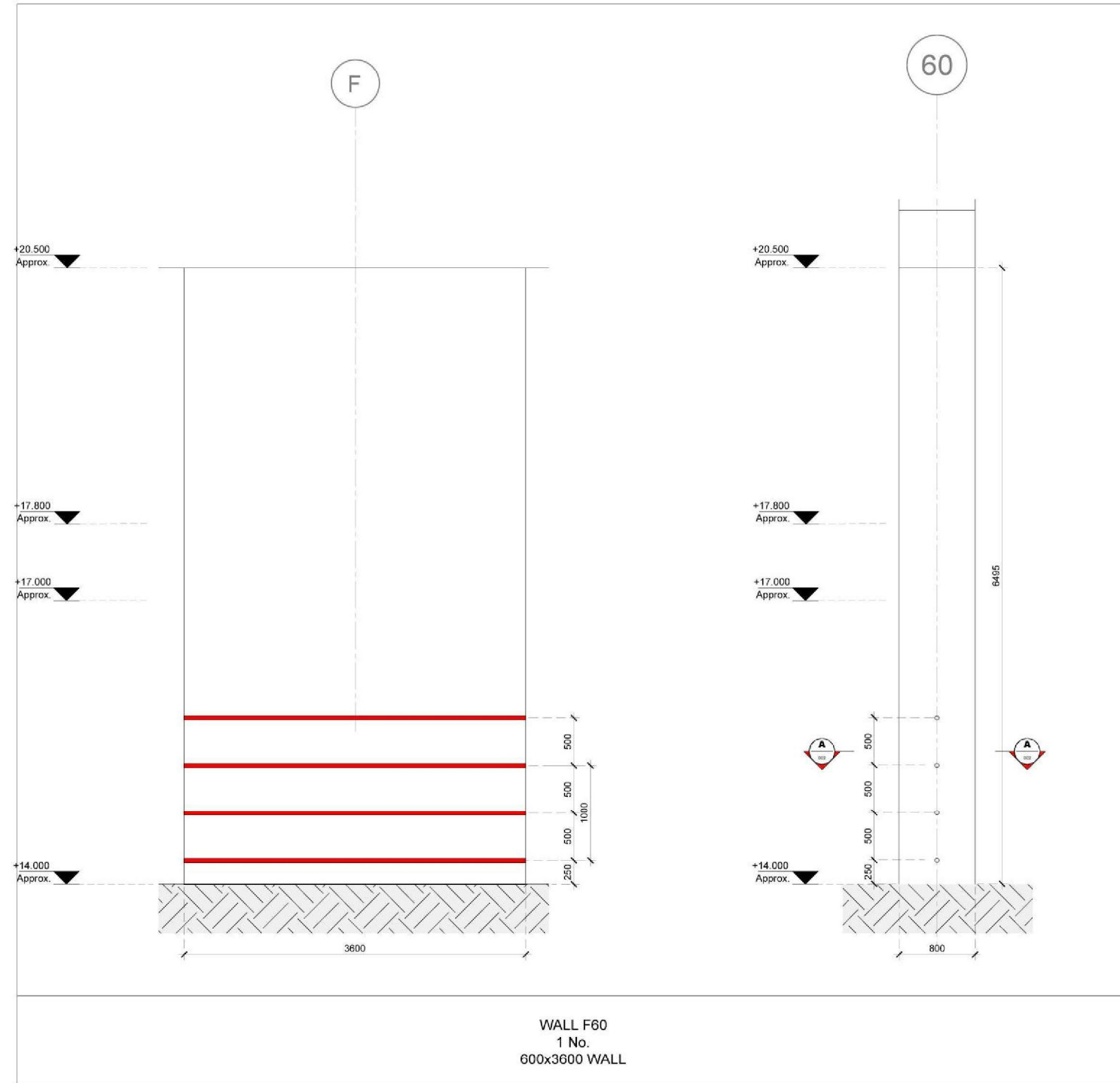
C2002 / D005 / DWG020	General Arrangement
C2002 / D005 / DWG021	Pre-Weakening Details - Sheet 1
C2002 / D005 / DWG022	Pre-Weakening Details - Sheet 2
C2002 / D005 / DWG023	Detonation Sequence

All drawings to be printed in color

Rev	Date	Description	By
 BROWN&MASON Anson House, Schooner Court, Crossways Business Park, Dartford, Kent, DA2 6QQ Tel : +44 (0)1322 277731 Fax : +44 (0)1322 284152			
Site			
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Title			
Turbine Pedestal Pre-weakening Tolerances & Details Sheet 1			
Scale at A3	Date	Drawn	Designed
N.T.S.	21-07-22	5.1.2e	5.1.2e
Project Number	Design Number	Drawing Number	Revision
C2002	D005	DWG021	



1 STRUCTURAL CONCRETE TOLERANCES



3 WALL DRILLING

All drawings to be printed in color

Rev	Date	Description	By
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Site
Central Gelderland Power Plant Hollandiaweg 11, 6541 BL Nijmegen

Title
Turbine Pedestal Pre-weakening Tolerances & Details Sheet 2

Scale at A3	Date	Drawn	Designed
N.T.S.	21-07-22	5.1.2e	5.1.2e
Project Number	Design Number	Drawing Number	Revision
C2002	D005	DWG022	